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USSR Report

ECONOMIC AFFAIRS

No. 918



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ECONOMIC POLICY, ORGANIZATION, AND MANAGEMENT

GOSPLAN OFFICIAL TALKS ABOUT MAXIMIZING BENEFITS FROM NEW TECHNOLOGY

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 13 Jan 80 p 2

[Article by K. Yefimov, Division Chief at Gosplan USSR, Candidate in Economic Sciences: "New Equipment: The Plan and Stimuli"]

[Text] Scientific and technological progress is a very important factor in increasing the efficiency of social production. Suffice it to say that the annual renewal of output through the introduction of new equipment and technology is taking place today three to four times more rapidly than 20 years ago. In certain branches these rates are twice as fast. During the current five-year plan the economy from the introduction of new equipment measures will reach 16 billion rubles. This is almost 1.5 times more than was obtained during the Ninth Five-Year Plan. Today technological progress provides for around two-thirds of the increase in labor productivity and three-fourths of the decrease in output costs.

Such an important role for science and technology in the intensification of economic growth requires that their achievements be taken account of directly in the economic and social development plans. This involves coordinating the management of scientific and technological progress as closely as possible with general economic management, including the plans for the practical realization of scientific and technical achievements in the real cost accounting work of enterprises and associations, and measuring the return from the introduction of technical innovations in the indicators of efficiency and quality.

The decree of the CC CPSU and USSR Council of Ministers "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Work Quality" points out the economic and organizational levers with the help of which the economic plan can be constructed on the basis of scientific and technical achievements. The most important of them is the special purpose programmed method of planning. In one or another form it has been employed in the past, but not always successfully. For example, the shortcoming of the 200 special purpose programs for the most important scientific and

technical problems which were stipulated for the Tenth Five-Year Plan consists precisely in the fact that they usually ended with only a verification of the decisions in head facilities. The role of special purpose scientific and technical programs is now being greatly increased. And the very organization of their development and realization is changing in a fundamental way. They will now be concluded with the introduction of the results of research and development into the economy.

The national economic character of the special purpose programs is being strengthened. In particular, a long-term overall program for the development of transportation will be developed which will embrace all types of shipments and absorb into itself the best achievements of scientific and technical thought. Fuel and energy problems will be solved and metallurgy and machine building and the food complex will develop from the positions of an overall interbranch approach.

A special place is being assigned in the decree to the development of the prospects for the development of science and technology and to the use of research in the economy on the basis of an overall program for scientific and technological progress for twenty years which is being worked out by the USSR Academy of Sciences and the USSR State Committee for Science and Technology. These programs have to be presented to the USSR Council of Ministers no later than two years before the beginning of a five-year plan. This will make it possible to put new technical solutions which promise a sharp improvement of production efficiency and of the quality of work in the national economic plan as early as the planning stage.

Every five years the necessary correctives will be made in the long term program for scientific and technological progress. This will ensure consistency and continuity in the planning of scientific and technological progress, and the reequipping of the branches will be organically combined with the technical development of the economy. The main thing is that all of the cycles of scientific and technological progress -- science, technology, the organization of production, and the use of new machinery and technological processes -- will be reflected in concrete programs and plans.

The use of a system of indicators of the technical level of production and of output has to be regarded as another important condition for obtaining maximum final results from the use of scientific and technical achievements. We have in mind the approval for branches of assignments for the realization of the most important achievements of technological progress in order to sharply raise the technical level of production, the quality of output, and labor productivity and to ensure an economical expenditure of resources.

In the machine building industry, for example, it is important to purposefully change the proportions in the production of equipment for cutting machining and pressure machining in favor of the latter. In this way it is possible to produce products which are close to and, in a number of cases, fully correspond to an assigned form and size and to make wider use of the advantages of low-waste and waste-free technology. The high effectiveness of parts rolling machine tools which have been created in the heavy machine building branch is also well known. More than 300,000 tons of precision billets are being manufactured on 63 such machine tools with minimum labor and metal expenditures. Whereas in the past, 600 metal-cutting machine tools were needed to satisfy the needs of animal husbandry farms for transporter rings, today 12 screw-rolling machines have been installed instead of them. Labor productivity has increased by 30 times, and metal wastes have been curtailed by 18 percent.

A rise in the technical level of production is of enormous social importance. Whereas in 1978, 58 out of every 100 industrial workers worked with the help of machinery and mechanisms, by the end of this year this proportion will reach 65 percent. And during the Tenth Five-Year Plan as a whole more than 2 million people will be shifted from manual labor to mechanized labor.

Generalizing quality indicators are becoming an important means of raising the technical level of production. Such indicators as the "average life of tires," the "average potential of diesels," "average content of iron in commodity ore," and the "proportion of automated intercity telephone communications in the total amount of intercity telephone communications." The use of these quality criteria and their planning places branch workers before the necessity of carrying out complexes of measures which ensure the achievement of the highest final technical and economic indicators of output.

The decree also provides for a strengthening of the economic interest of collectives in raising the technical level of production and of output. In particular, an extensive shift has been planned to a cost accounting system of organizing work to create, master, and introduce new equipment on the basis of schedule orders or contracts. The advantages of this kind of form of organization are that it makes it possible to define the final results of work which is planned, executors, and fulfillment schedules for assignments at all stages, from research to the introduction of innovations to production.

The elimination of the presently existing contradiction between the volume indicators of the plan and the expenditure of resources to develop technical innovations will have a positive effect upon increasing

the interest of collectives of introducing new equipment. The cost of work of an industrial character which is performed in connection with the mastery of new machinery on the basis of the resources of the single scientific and technical development fund is now being taken account of in the total amount of output. One-time bonuses are being introduced for the creation, mastery, and maximum production of especially important and highly effective types of equipment and machinery and for the development of fundamentally new technological processes.

Planning and economic agencies have now involved in earnest upon the realizations connected with the acceleration of scientific and technological progress. Gosplan USSR, the USSR State Committee for Science and Technology, and the USSR Academy of Sciences have approved programs for the introduction of new technologies to production. Planning and organizational measures have been adopted to accelerate the realization of previously developed scientific and technical programs. The implementation of these and other measures to improve the planning and economic stimulation of scientific and technological progress will actively promote an increase in the efficiency of social production.

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CSO: 1820

ECONOMIC POLICY, ORGANIZATION, AND MANAGEMENT

STATISTICAL REPORTING, SCIENTIFIC, TECHNOLOGICAL PROGRESS DISCUSSED

Moscow VESTNIK STATISTIKI in Russian No 1, Jan 80 pp 13-18

[Article by K. Bakis: "Statistical Reporting Under the New Conditions of the Management of the Scientific and Technological Progress"]

[Text] For the purpose of strengthening planning influence on the development of the economy it is found necessary in the decree of the CC CPSU and USSR Council of Ministers "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Improving the Quality of Work" to approve a large number of indicators and economic norms with an annual breakdown in the five-year plans for economic and social development of ministries, associations, and enterprises. In particular, such indicators which characterize the level and direction of scientific and technical development as the following have been recommended: The basic assignments for the fulfillment of scientific and technical programs and for the development, mastery, and introduction of new and highly effective technological processes and types of output, including at newly commissioned enterprises and facilities; the basic indicators of the technical level of production and of the most important types of output; the economic effect from carrying out scientific and technical measures; and the norms for the formation of the single scientific and technical development fund (for ministries).

The successful use of the indicators which are recommended in the planning of practice presupposes above all a further improvement of the methodology of determining them, and also a rise in the general level of planning and economic work.

The basis for increasing the efficiency of social production is the introduction of scientific and technical achievements into the economy. For this reason, an improvement of accounting and reporting and an improvement of state statistical reporting which reflect the results of the introduction of new equipment at enterprises is a top-priority task.

A sample survey which has been conducted has shown that there has recently been a rise in the level of planning scientific and technological progress at enterprises. The structure of the plans for the introduction of new equipment has improved and the proportion of the work which is covered by these plans has increased. Demands have increased upon the measures which are included in the plan.

There has been a substantial improvement of statistical reporting on expenditures for new equipment measures and their economic effectiveness (forms No. 10-HT and No. 2-HT). Enterprises have begun to determine the effectiveness of individual measures more correctly from a methodological point of view, and there has been an increase in their responsibility for filling out statistical reporting forms. The proportion of industrial enterprises covered by statistical reporting has increased. Thus, while ten years ago reports in form No. 10-HT represented approximately 75 percent of the total number of industrial enterprises, at the present time the figure is 92 percent. With regard to the volume of output produced the proportion of industrial enterprises which report on form No. 10-HT comes to around 98 percent (basically it is only the enterprises of the central union of cooperatives which do not report).

Nevertheless, there are still unsolved problems. Thus, there are no clear criteria for classifying new equipment measures in the individual directions of technical development in keeping with the specific nature of concrete productions. Plans for raising the technical level of production at enterprises are insufficiently unified. A number of measures to raise the technical level of production are not reflected in the plans of enterprises (the introduction of new types of raw materials, fuel, materials, and energy; an improvement of the use of material resources; an improvement of the quality and technical level of output; an increase in the production of new output and of output of improved quality which were mastered previously; scientific methods of managing and organizing production, and others). At the same time, certain measures get into several plans simultaneously and are reflected in the reports in form No. 10-HT in several scientific and technical directions.

Work on determining the economic efficiency of new equipment has not been properly organized at all enterprises. Insufficient care is shown in performing the calculations of the effectiveness of measures which are not subject to bonus payments and are not financed through Gosbank loans. In a number of cases enterprises do not take account of expenditures not only for individual measures, but also for new equipment as a whole. Accounting does not have a document which is uniform for all enterprises and which records planned and actual expenditures for new equipment measures.

Calculations of economic effectiveness are not always corrected on the basis of actual operating conditions, and an economy on individual types of expenditures is not always calculated correctly from a methodological point of view.

Enterprises are sometimes insufficiently interested in improving the quality of calculations they perform which, in our view, presupposes a weak connection between the economic effect which is achieved and the planning of the basic indicators of production work and the stimulation of enterprise workers. The approval of an indicator of the economic effect from the performance of scientific and technical measures in the five-year plan with an annual breakdown will help to strengthen the responsibility of enterprises for the reports they present. At the same time, increased demands are being made upon the methodology of evaluating the economic effectiveness of new equipment. The publication in 1977 of the "Methods for Determining the Economic Effectiveness of the Use in the Economy of New Equipment, Inventions, and Rationalizers' Proposals" helped to raise the level of economic planning work at enterprises, since it eliminated the disorder which existed in the branches in the methods of evaluating the effectiveness of new equipment. On the basis of these Methods the ministries and departments in agreement with the State Committee for Science and Technology and the State Committee for Inventions have prepared and approved around 60 branch instructions. In the individual branches corresponding sub-branch instructions are being created, and also instructions on evaluating the economic effectiveness of the creation and use of concrete types of equipment. The USSR Central Statistical Administration has prepared an instruction on the procedure by which enterprises present and fill out the statistical reporting forms on the economic effectiveness of new equipment.

At the same time, when the actual effect is determined at enterprises difficulties are frequently encountered, since the existing accounting forms do not always make it possible to isolate new equipment expenditures.

It seems to us that for calculating this indicator at the industrial enterprise use can be made of the "Methodological Instructions on Determining Actual Expenditures and Economies from the Introduction of New Equipment at the Industrial Enterprise" which were prepared by the Bureau of the Methodology of the Planning and Effectiveness of Science and Technology of the State Committee for Science and Technology. The methodological instructions recommend in particular: The economy from decreased costs should be determined either on full operating expenditures including shop or general plant expenditures (in calculating effectiveness on the level of shops or other large such sub-divisions), or on the basis of the difference in direct operating expenditures (in carrying out technical measures at individual production operations or jobs);

such expenditures elements as the wages of the basic production workers plus allotments and basic materials and depreciation allotments for production equipment should be calculated directly with the use of the accounting documents of shops (work orders, routing sheets, pay lists, bank accounts, ceiling charts, materials specifications, statements of equipment value, and so forth);

in determining the economy obtained in individual expenditure items which represent a relatively small proportion of shop costs and do not lend themselves to direct localization (electric energy, steam, expenditures for the maintenance and current repair of equipment) use should be made of the values of the actual specific expenditures in the shop (the actual cost of one-kilowatt hour of electric energy in the shop, the cost of maintaining and performing current repairs on a single unit of equipment, and so forth).

Since the amounts of produced output (jobs) by periods represent a very important condition for determining the actual economic effectiveness of new equipment, it is recommended that they be calculated with regard to the specific nature of production.

There are similar recommendations for calculating the actual expenditures to introduce new equipment measures and determining the number of actually released workers.

Until recently statistical reporting provided for a calculation over a period of two years of the additional economic results obtained from a further mastery of new equipment. The receipt of fuller and more accurate data on economic effect requires that this period should be no smaller than a full period of the normal technical and economic mastering of a new equipment object. Since normed mastery periods for the types of equipment have not been worked out in all productions, beginning with 1980 a period for calculating and reflecting the additional effect of three years is provided for.

Under the new conditions of managing scientific and technological progress the importance of the planned and actual indicators of economic effectiveness at enterprises is increasing. For this reason, along with an improvement of the methods of determining planned and actual effect at enterprises and an improvement of statistical reporting on the economic effectiveness of new equipment, a calculation of the influence of new equipment on the overall economic indicators of production (an increase in the amount of production, an increase in labor productivity and in the capital-labor ratio, a change in return on capital and in the profitability of production, and so forth) is very important. This influence can be determined on the basis of generalized statistical

data both for individual industrial enterprises and even shops and for branches and sub-branches and also industry as a whole.

The method which has been developed by the Bureau of the Methodology of the Planning and Effectiveness of Science and Technology makes it possible to give a quantitative evaluation of a large number of indicators which, in particular, characterize the influence of new equipment on the overall economic indicators of production:

the annual increase in the production of output obtained on the basis of increasing labor productivity ($\Delta B_{\text{пр}}$):

$$\Delta B_{\text{пр}} = B_0 - B_1 - \frac{B_0}{q_0} (q_0 - q_1);$$

the proportion of the increase in output obtained on the basis of an increase in labor productivity ($y_{B_{\text{пр}}}$), in the total annual increase:

$$y_{B_{\text{пр}}} = \frac{\Delta B_{\text{пр}}}{B_0 - B_1} \cdot 100;$$

annual increase in labor productivity on the basis of new equipment ($\Delta \Pi T_*$):

$$\Delta \Pi T_* = \frac{\Delta q_*}{q_0} \cdot 100;$$

proportion of the increase in labor productivity obtained on the basis of new equipment in the total increase in labor productivity ($y_{\Pi T_*}$):

$$y_{\Pi T_*} = \frac{\Delta \Pi T_*}{\Delta \Pi T} \cdot 100;$$

proportion of the increase in output obtained on the basis of new equipment in the total increase in output (y_{B_*}):

$$y_{B_*} = \left(\frac{y_{B_{\text{пр}}}}{100} \cdot \frac{y_{\Pi T_*}}{100} \right) \cdot 100;$$

proportion of profits obtained from the introduction of new equipment measures in the total annual increase in profits (y_*):

$$y_* = \frac{\mathfrak{P}}{\Pi_0 - \Pi_1} \cdot 100;$$

change in the overall profitability of production (Δr):

$$\Delta r = \frac{\Pi_1 + \mathfrak{P}}{\Phi_1 + \Delta K_*} \cdot 100 - \frac{\Pi_0}{\Phi_0} \cdot 100.$$

The relative number of workers released as the result of the introduction of new equipment ($\Delta \psi_n$) can be calculated from one of the following formulas:

$$\begin{aligned}\Delta \psi_n &= \psi_n - \psi_0, \\ \Delta \psi_n &= \frac{B_n}{\Pi T_n} - \frac{B_0}{\Pi T_0}, \\ \Delta \psi_n &= \frac{(t_0 - t_n) \cdot B_0}{\Phi_p}, \\ \Delta \psi_n &= \left(\frac{t_0^n}{\eta} - \frac{t_n^n}{\eta} \right) \cdot \frac{B_0}{\Phi_p}.\end{aligned}$$

The designations in the formulas are:

- B_0 и B_n — The amount of output produced during the reporting and base periods;
- ψ_0 и ψ_n — The number of industrial production personnel during the reporting and base periods;
- $\Delta \psi_n$ — The relative number of workers released as the result of the introduction of new equipment;
- $\Delta \Pi T$ — The total increase in labor productivity during the year;
- \mathcal{E} — The annual economy (increase in profits) obtained as the result of the use of new equipment;
- Π_0 и Π_n — Total annual profits during the reporting and base period;
- ΔK_n — Expenditures for the creation and introduction of new equipment;
- Φ_0 — Average annual value of fixed productive capital and value of circulating capital during the base period;
- ΠT_0 и ΠT_n — Labor productivity during the base and reporting periods (before and after the introduction of new equipment);
- t_0 и t_n — Actual labor intensiveness of a unit of output during the base and reporting periods (before and after the introduction of new equipment);
- Φ_p — Annual working time fund of a single worker;
- t_0^n и t_n^n — Normed labor intensiveness of a unit of output during the base and reporting periods (before and after the introduction of new equipment);
- η — Percentage (coefficient) of the fulfillment of norms.

As practice shows, in performing this kind of analysis it is advisable to use the statistical reporting forms on the effectiveness of new equipment (No. 10-HT) and on the scientific organization of labor (No. 19-T) (NOT).

An improvement of the methods of determining the economic effectiveness of new equipment at enterprises and an improvement of the quality of

statistical reporting create the preconditions for analyzing the use of equipment in order to ensure a further increase in production efficiency at an enterprise.

An overall evaluation of the use of new equipment is established by analysis and the causes of deviations in the actually attained indicators of the use of new equipment from those which had been calculated at the stage of introduction are disclosed. It has to be kept in mind here that the actual indicators are formed under the influence of two basic groups of factors: (1) The level of the design solutions in the creation of the equipment and the quality with which it is manufactured; (2) the organizational level and the conditions of the operation of the equipment.

In order to determine an effect which depends upon individual factors correction calculations are performed which ensure the comparability of the indicators of the base and the new equipment as the influence of other factors is eliminated in each of the above groups.

The results of the use of new equipment are analyzed in the following sequence: actual amounts of output (operations) produced; actual profits obtained (economy from decreased costs); actual expenditures for the introduction of new equipment (capital expenditures); and release of labor power.

The amounts of actual economic effectiveness are determined to a large extent by the amounts of output (operations) produced with the use of the new equipment. For this reason a study of the changes in these amounts comprises the basis of the economic analysis. The amounts and causes of deviations in the actual amounts of output (operations) from those envisaged by the calculations have to be disclosed, "bottlenecks" have to be determined, and measures have to be planned for a further mastery of the production capacities of new equipment objects.

In a similar manner, proceeding from the structure of operating expenditures, the basic sources for an increase in profits (economy from reduced costs) and the causes of deviations in their actual values from the calculated ones have to be established. The analysis has to be performed dynamically with regard to the changes occurring in operating conditions by periods. When there are several similar new equipment objects at an enterprise the comparison of technical and economic indicators is performed with regard to the specific operating conditions at each of the objects.

On the basis of the analysis which has been performed measures are worked out for a further mastery of new equipment, proposals are made on the scope of the expansion of its introduction, and recommendations are

worked out regarding making the necessary changes in the design of machines and production technology, and also the creation of the necessary organizational and technical conditions for increasing the effectiveness of new equipment.

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ECONOMIC POLICY, ORGANIZATION, AND MANAGEMENT

ROLE OF STATISTICS IN IMPROVING ECONOMIC MANAGEMENT DISCUSSED

Moscow VESTNIK STATISTIKI in Russian No 1, Jan 80 pp 3-12

[Article V. Tolkushkin: "An Improvement of the Economic Mechanism and the Tasks of Industrial Statistics"]

[Text] The Communist Party and the Soviet government are constantly devoting a large amount of attention to the dynamic development of our socialist industry -- the basis of the country's economic might.

The development of industry under present conditions is characterized by profound structural changes and changes in the territorial disposition of the productive forces. New mineral deposits are being developed and large territorial-production complexes are being created and developed. The contribution of the industrial enterprises of Siberia and the Far East is becoming increasingly weighty.

Speaking at the November (1979) Plenum of the CC CPSU, the General Secretary of the CC CPSU and Chairman of the Presidium of the USSR Supreme Soviet Comrade L. I. Brezhnev said: "The dynamic development of the territorial-production complexes is continuing. In four years the West Siberian, Bratsk, Pavlodar-Ekibastuz, Orenburg, Nizhnekamsk, and other complexes ensured the entire growth of the extraction of petroleum and gas and a substantial part of the production of the electric engery, iron ore, coal, trucks and tractors....Enormous resources are being invested in the economy. The country has taken first place in the world for the extraction of many types of fuel and raw materials and for the production of iron, steel, cement, mineral fertilizers, and a large number of other indicators. Productive capital is continually increasing and more and more labor resources are being enlisted."

The decrees of the CPSU Central Committee "On a Further Improvement of the Economic Mechanism and on the Tasks of Party and State Agencies" and of the CC CPSU and USSR Council of Ministers "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Improving the Quality of Work" are of enormous importance for the further development of industry. The adoption of these

documents is an important stage in carrying out the decisions of the 25th CPSU Congress and the Plenums of the CC CPSU and the instructions of the General Secretary of the CC CPSU and Chairman of the Presidium of the USSR Supreme Soviet Comrade L. I. Brezhnev on a further improvement of planning and of the management of the economy. The practical realization of the complex of measures envisaged by these documents will make it possible to raise the level of planning and economic management in accordance with the tasks facing us at the current stage of the development of industry, to achieve a substantial increase in production efficiency and improvement of the quality of work and to accelerate scientific and technological progress and the growth of labor productivity, and to make the fullest and most efficient use of our enormous economic potential.

The accomplishment of the tasks which have been set is making new increased demands upon industrial statistics to ensure the systematic observance of the course of the fulfillment of planning assignments and a deepening of economic analysis on the basis of statistical information, especially of the results of the work of industrial enterprises under the conditions of a further improvement of the economic mechanism. It is also necessary to perform a large amount of work to further improve statistical indicators and to introduce into reporting the changes which follow from the decree of the CC CPSU and USSR Council of Ministers.

The decree establishes a clear system of plans which includes an overall program for scientific and technological progress for 20 years (broken down by five-year periods), the basic directions of the economic and social development of the country for 10 years (by five-year periods), and five-year and annual plans. In addition, the role of the five-year plan as the most important form of planning the country's economic and social development and the basis of the organization of the economic work of enterprises, associations, and ministries is undergoing a substantial increase. It is on this basis that long-term economic relations will be formed and contracts will be concluded between production associations (enterprises) and sales and supply, trade, transportation, and other organizations. The importance of the five-year plan is also increasing in connection with the fact that it is becoming the basis of current annual planning to an even greater degree. The annual plans will be worked out on the basis of economic norms and assignments for a given year of the five-year plan; in addition, the necessary concretization of these assignments and the performance of economic and organizational measures which ensure their fulfillment is also planned. A number of assignments in the annual plan are not subject to reapproval.

The agencies of state statistics have to ensure a systematic overall analysis of the fulfillment of established assignments for all plan indicators. The following should be the object of such an analysis:

observance of priorities in the development of branches in economic regions stipulated in the plans; an improvement of branch and intra-branch proportions; and an efficient use of productive capital, and material, labor and financial resources. An analysis of the development of the branches which determine technological progress to the greatest degree, the development of the fuel and energy complex, and the development of the metallurgical base must be at the center of our attention. It is especially important to analyze how the production of the output of group "B" of industry is developing, and how the assignments which have been established in the branches which produce consumer goods are being fulfilled.

The fact that the fulfillment of the five-year plan at all levels of economic management has to be evaluated in a running total from the beginning of the five-year plan, and the evaluation of the fulfillment of the annual plan has to be in a running total from the beginning of the year is a point of fundamental importance for organizing observance over the course of the fulfillment of planning assignments. The corresponding indicators have to be stipulated in the reports of enterprises and associations and in the summary reporting for ministries, union republics, ASSRs, krais, oblasts, cities, and also economic regions and territorial-production complexes. It should be noted that the task of a rational combination of branch and territorial planning and of increasing the role of territorial planning is making it necessary to strengthen all of the work to develop statistical information and to analyze it in a territorial breakdown.

The decree of the CC CPSU and USSR Council of Ministers defines a clear system of planning indicators both for the five-year and the annual plans. Its most characteristic feature is an increased role for qualitative indicators in planning and evaluating the work of ministries, associations, and enterprises.

The problem of planning production in cost terms is being decided in industry in a fundamentally new way. A shift is planned to an indicator of normed net output, and in individual branches to an indicator of commodity output in comparable prices. The shift to the normed net output indicator will be carried out as the branches are prepared for this.

The net output norm represents a part of the wholesale price which includes wages, allotments for social insurance, and profits. As a reflection of newly created value, it expresses the results of labor collectives' own efforts and thereby more accurately measures the contribution of each enterprise, association, and ministry to an increase in the country's national income.

In agreement with the USSR Central Statistical Administration on 12 September 1979 Gosplan USSR, the USSR State Committee for Prices, the USSR Ministry of Finance, and the USSR State Committee for Labor and Social Questions approved methodological instructions which define a uniform procedure for forming and approving net output norms and for using the normed net output indicator in a system of indicators for planning and evaluating the work of ministries, associations, and enterprises. In accordance with its economic content, it will be used to calculate the dynamics (growth rate) of the physical amount of production, of labor productivity, planning the wage fund, and controlling its use. This indicator will be used to evaluate and summarize the results of socialist competition with respect to the fulfillment of production, labor productivity, and return on capital plans. In the plans of ministries, associations, and enterprises which have not shifted to the use of the normed net output indicator, the commodity output indicator in comparable prices is determined as an estimate and is not used for evaluating their work. It will be used for determining the total amount of industrial output, the amount of output in groups "A" and "B," and the branch structure of industrial production.

State statistical agencies have gained a definite amount of experience in developing and analyzing the normed net output indicator since for a number of years it has been used in the form of an experiment for planning and evaluating the work of a number of industrial enterprises and ministries. The normed net output indicator is now being used for planning and evaluating work at more than 800 enterprises, including at all of the enterprises of the ministries of heavy and transportation machine building and energy machine building, and at the Main Administration for the Construction Materials and Construction Parts Industry of the Mosgorispolkom. Normed net output and labor productivity indicators were introduced into the reporting of the enterprises participating in the experiment in 1976. However, the sequence of indicators in the reporting forms is now in need of refinement in keeping with their significance in planning and evaluating the work of enterprises and ministries. These changes will be made in the current and annual reporting forms when they are reviewed in 1980.

Given the use of different indicators of production volume in value terms in the individual branches of industry it is especially important to examine the question of the procedure for developing summary reporting in a territorial breakdown, particularly the question of organizing summary groups of enterprises by the degree of their fulfillment of their plans for the indicators which have been adopted for planning and evaluating the work of enterprises in concrete branches of industry. The procedure for developing summary statistical reporting has to be closely coordinated with the procedure for composing industrial output and labor productivity plans in the union republics, oblasts, krays, and cities.

The approach to evaluating plan fulfillment for the output sales indicator is being changed. It will be used for evaluating the fulfillment of plans and commitments for output deliveries in products lists (assortment) in keeping with contracts and schedule orders. This indicator has been used since 1978 in the system of bonuses for the executive workers of associations (enterprises), and also as one of the fund-forming indicators. Not only the summary development of this indicator is being carried out, but also the grouping of enterprises by the degree of plan fulfillment for it both in a branch (departmental) and territorial breakdown. A number of sample surveys have been performed in order to study the influence of plan fulfillment for this indicator on the formation of economic stimulation funds and of bonuses. However, work will still have to be done with the ministries to improve primary computation which ensures the absolute reliability of data on the fulfillment of the deliveries plan. As checks which have been carried out by statistical agencies show, individual ministries have not yet taken the necessary measures to organize the day-to-day primary calculation of the fulfillment of contracts and schedule orders. In a number of cases the fulfillment of contract commitments is taken account of not in a full-scale, but in a group assortment, which reduces the effectiveness of this indicator.

In the light of the decree there will be a substantial increase in the role of state statistical agencies in evaluating the fulfillment of planning assignments for the production of output in physical terms. This is connected above all with the fact that the products list of the output for which planning assignments are established is being expanded. The decree provides that in their five-year plans industrial ministries, associations, and enterprises have established for them assignments for the production of the basic types of output in physical terms including output for exports; in the annual plans these assignments will be approved for a fuller products list than in the five-year plan of consumer goods -- the production of output in physical terms in a group assortment, including children's goods.

A substantial amount of work will have to be done to improve the products list of the industrial output which is calculated in order to ensure a full and systematic observance of the fulfillment of the plan for all types of output in accordance with its production assignments. Statistical reporting will also have to reflect changes in the system of the physical measurers of the output produced (in metallurgy, machine building, and other branches of industry) on the basis of the wide use of scientifically substantiated technical and economic indicators which make it possible to take account of the quality and other consumption properties of output. A detailed and scientifically substantiated output products list has to correspond to the needs for analyzing the technical level

and quality of output and of introducing economical types of materials and progressive technological processes into production. It is necessary to have a systematic improvement of products lists as production masters new types of products in keeping with the plan for the renewal of industrial output.

The accomplishment of these tasks has to be based on a wide use of electronic equipment and a further improvement of electronic processing complexes for information on the production of industrial output. During the course of this work it will also be necessary to complete the introduction into statistical reporting of summary workups of the top classification groups of the all-union classifier.

Since the planning assignments for the production of individual types of output will be made up on the basis of long-term economic relations and contracts, which will ensure a fuller account in these assignments of the concrete needs in the economy for individual types of output, there will be an important increase in the role of the overall analysis of production and output deliveries. The analysis of the course of the fulfillment of planning assignments for the production of output has to be closely coordinated with an analysis of the course of the fulfillment of contract commitments and, this means, it will require the extensive use of the data of the statistics of material and technical supply and of trade statistics.

The decree provides for a strengthening of state influence on improving the quality of industrial output. In this connection, in addition to the indicator of the overall amount of the highest quality category output in value terms, the statistical reporting of industrial enterprises has to include an indicator of the proportion of highest quality category output. In accordance with the Methodological Instructions on the Procedure for Planning and Calculating an Increase in the Production of Highest Quality Category Output which was approved on 12 August 1979 by Gosplan USSR and the USSR State Committee for Science and Engineering, the assignments for the production of highest quality category output are determined on the basis of this indicator.

There will be a substantial increase on the role of information on the course of the certification of output and on its distribution by quality categories and grades, and also on the observance of the operating state standards, on losses from defective goods, and on guaranteed repairs. An overall analysis of these indicators will make it possible to substantially deepen the statistical analysis of the quality of industrial output.

The decree of the CC CPSU and USSR Council of Ministers provides for an important complex of measures to further improve the planning and economic stimulation of the production of consumer goods.

During the Ninth Five-Year Plan the USSR Central Statistical Administration performed a large amount of work to develop the statistics of the production of consumer goods and improve the analysis of its data. The quarterly collection of data on the production of the output of group "B" of industry in a breakdown by union republics, oblasts, and ministries has been organized; every month information is developed upon the course of the fulfillment of the assignments established for the 10th Five-Year Plan for the production and delivery to trade of mass consumer goods and products in increased demand; statistical reporting on the fulfillment of the plan for the production of consumer goods with the Olympic Symbol has been approved; and the system of indicators which characterize the quality of industrial output for the population has been expanded.

The statistics of the production of consumer goods has to develop in the direction of a deeper study of the renewal of assortment and the improvement of the quality of products and of a correspondence of the production of goods to the population's demands and of output deliveries to the orders of trade enterprises. Especial attention has to be devoted to a fuller use of raw materials, by-product output, and also the raw materials resources of local sources.

The role of statistical information on the production of consumer goods is undergoing an important increase in connection with the fact that the councils of ministers of the union and autonomous republics and the ispolkoms of the kray, oblast, and city Soviets of People's Deputies have been given the responsibility of making up and approving summary five-year and annual plans for the production of consumer goods and for controlling their fulfillment.

Among the indicators of the five-year and annual plans on labor and social development a leading role is being kept for the labor productivity indicator. An increase in labor productivity under present conditions in effect determines the level and dimensions of the intensification of the industrial production. The decree provides that the assignment for an increase in labor productivity be determined on the basis of the net output (normed) indicator, or of another indicator which in the individual branches more accurately reflects changes in labor expenditures. In this connection, it is necessary to make changes in the statistical reporting of enterprises and in the summary statistical reporting on labor which are connected with the use of the normed net output indicator in calculating labor productivity, and also to provide for the possibility of reflecting labor productivity indicators which are differentiated for the individual branches and productions.

The economic analysis of labor productivity indicators requires further deepening. In addition, attention has to be directed toward studying the

factors in the growth of labor productivity and, in particular, the influence of an increase in the technical level of production and of the realization of measures connected with scientific labor organization. It is necessary to make a deeper analysis of commissioning new enterprises and facilities on the level and growth rates of productivity, and also of the experience of enterprises which carry out measures to accelerate the growth of labor productivity and increase the production of output with a smaller number of workers (the experience of the Shchekino Chemical Combine). The statistical reporting which was introduced in 1977 makes it possible to give a quite profound analysis of the work of these enterprises, to demonstrate its effectiveness, and to show the extent to which their experience has been disseminated.

A study of the work of enterprises which employ an overall system of organizing production, labor, management, and wages (the experience of the Volga Motor Vehicle Plant) has to be directly coordinated with the analysis of the labor productivity indicators. In 1979 statistical reporting was introduced for these enterprises -- the appendix to forms No. 2-T and No. 4-T (industrial). But this reporting does not yet fully ensure the possibility of a comprehensive analysis of the work of these enterprises. It will be necessary to develop and introduce a statistical report which reflects in a complex the results and effectiveness of the use of advanced experience and to introduce the necessary supplements into the operating model forms of statistical reporting. This reporting has to fully ensure observance over the fulfillment of the established assignments for scientific labor organization, production, and management.

Beginning with the 11th Five-Year Plan an assignment to reduce the use of manual labor will be approved in the five-year plans of economic and social development of industrial ministries, associations, and enterprises. State statistical agencies will have to carry out a large amount of work in connection with this. Until 1979 the statistical study of the use of manual labor and of the mechanization of labor was carried out on the basis of single surveys. In 1979 a statistical report on the number of workers employed in manual labor in basic and auxiliary jobs was introduced for machine building enterprises. The experience in conducting these surveys and also the development of the statistical reporting for machine building enterprises makes it possible to draw the conclusion that the methodology which has been adopted on the whole ensures an account of the number of workers employed in manual labor. The task now is to disseminate this experience to other branches of industry and to establish reporting forms which will make it possible to systematically keep watch over the fulfillment of assignments on reducing the use of manual labor. For this reason, difficult problems connected with organizing the corresponding primary computations will have to be solved jointly with ministries. This involves a refinement of the operating

classification of vocations with regard to the characteristics of each branch, the development of primary accounting forms, and instruction and training for workers who will be working on primary calculations directly at their jobs and in shops and at sectors.

In their five-year plans for social and economic development industrial ministries, associations, and enterprises will have approved for them long-term (with an annual breakdown) norms for wages per ruble of output in accordance with the indicator used to plan labor productivity, and in individual branches -- the overall wage fund. These norms have to be included in the operating statistical reporting in order to ensure constant control over compliance with them.

The decree provides for the approval in the five-year and annual plans of industrial ministries, associations, and enterprises of a ceiling on the number of workers and employees. This also has to be taken into account in developing the statistical reporting forms for 1981. The analysis of this indicator has to be performed on the basis of its economic content as the maximum possible amount of labor resources which enterprises, associations, and ministries may use to fulfill their five-year and annual plans.

The increasing dimensions of our industrial production and production and technical potential are making it necessary to strengthen the economic analysis of the effectiveness of fixed capital. The 25th CPSU Congress set the tasks of raising the level of the use of fixed capital; and to develop and carry out measures to increase return on capital, accelerate replacement of obsolete equipment, accelerate the mastery of newly commissioned capacities, increase the shift coefficient of equipment, decrease idle time by equipment, and increase its productivity. It is toward the solution of these problems that the measures to improve planning and the economic mechanism are aimed.

In this connection, it is necessary to improve the statistics of fixed capital and production capacities, in particular the methodology of constructing and the methods of analyzing the return on capital indicator as one of the most important generalizing indicators of the use of fixed capital. A methodology for determining return on capital in accordance with this indicator has to be developed for the branches (ministries) which use the normed net output indicator. There needs to be an analysis of the influence of branch changes, changes in the territorial disposition of production, and of the commissioning of new and reconstructed enterprises and facilities on return on capital in industry.

Under present conditions the indicators of the technical level of production are becoming very important. Their consistent use in the

practice of planning is a necessary condition for obtaining the largest final results from the use of scientific and technical achievements. This is greatly increasing the importance of the indicators which make it possible to analyze the process of the reproduction of fixed capital and, in particular, such indicators which are now being worked out as the coefficient of fixed capital renewal, the share of its active part, and others. An important direction in studying the qualitative composition of fixed capital is a study of the age structure of the equipment in operation and of the intensity of the renewal (replacement) of the equipment pool. And although reporting in form No. 75-TP (beginning with the report for 1977) was introduced in order to receive the data necessary to perform this work, this is insufficient. It is apparent that in the future it will be necessary to solve the problems of a technical and economic characterization of operating equipment (capacity, productivity, reliability, and so forth), and also the problems of a statistical analysis of the influence of reequipping enterprises on an increase in labor productivity, on the mechanization and automation of production processes, decreasing manual labor, and improving working conditions.

Especially attention is being devoted to the efficient use of production capacities in the measures to further improve planning and the economic mechanism. Provision has been made for the development of planning balances of production capacities within the five-year plan for each year of the five-year plan. Funds for the construction of new and the expansion of operating enterprises will be allocated in the event that the needs of the economy for a given type of output cannot be secured by operating enterprises through reconstruction and reequipping.

Our statistical agencies have a definite amount of experience in studying the creation and use of production capacities on the basis of the annual balances of production capacities which are worked out in form BM. The one-time inventory of production capacities as of 1 January 1978 represented major statistical work in this field. Under present conditions new and even greater demands are being made on the production capacities balances. Work must be carried on jointly with Gosplan USSR and the ministries to improve the methodology of determining existing production capacities and inventorying them in order to more fully reflect the production possibilities of enterprises and associations. A study of the problems connected with composing capacities balances for the production of output in value terms is very important in order to develop generalized results of the existence and use of capacities in a branch (ministry) as a whole. A large amount of work will have to be done to organize the development of data on the existence, movement, and use of production capacities in all enterprises in a territorial breakdown, regardless of the form of their subordination (union republics,

economic regions, territorial-production complexes). It is essential to deepen the analysis of the formation and use of production capacities through the enlistment of data on the course of the fulfillment of the plan commissioning them and on the achievement of the planned technical and economic indicators of the enterprise and facilities which are being commissioned. Especial importance is being acquired by information on the basic factors in the growth of production capacities -- new construction, the expansion of operating enterprises, their reconstruction and reequipping, and other organizational and technical levels. A reduction of equipment idle time and an increase in the shift coefficient are important reserves for raising the levels of the use of capacities. Of especially great importance in disclosing them are the single daily observations (surveys) whose results make it possible to achieve a more detailed examination of the complex of problems connected with shortcomings of the use of equipment, and to determine the amount of idle time and its causes, the shift coefficient of equipment, and a number of other indicators. This provides assistance to planning agencies and also to ministries, associations, and enterprises in studying the operation of equipment and working out measures to improve its use. Such surveys are conducted systematically (once every two years) at machine building enterprises. At the present time a definite amount of experience has been gained in conducting similar one-time surveys in a number of other branches of industry. It is clear that it is necessary to gradually expand the range of branches which are periodically surveyed and this will require a refinement of the survey methodology and program with regard to special branch characteristics in the technological process, equipment composition, and other enterprise operating conditions.

In the system of measures aimed at an efficient use of material, labor, and financial resources an important place is being assigned to increasing the role of the indicator of the cost of industrial output which expresses in monetary form all of the current expenditures of enterprises for the production and sale of output. This is being promoted, in particular, by the fact that instead of the profits indicator, an indicator of the decreased cost of output is being approved in the plans of individual ministries and branches. In these cases the amounts of the allotments to the economic stimulation funds are made dependent upon the attainment of this indicator.

Statistical agencies have to ensure a systematic watch over a decrease in the cost of output. Depending upon the character of the planning indicators, the data contained in the statistical reporting on the cost per unit of output, a decrease in the cost of comparable commodity output, and a decrease in expenditures per ruble of commodity output can be used for this purpose. The statistical information on the basic tendencies of the dynamics and on the factors which influence a change

in costs in the individual branches of industry and on the material expenditures per ruble of output is becoming more important. It is very important to coordinate the analysis of the materials intensiveness of industrial production with an analysis of the cost of the fulfillment of the planning assignments for an average decrease in the expenditure norms of the most important types of material resources, and also with an analysis of the data of the statistics of material and technical supply on a decrease on actual expenditures of material resources compared both to the established norms and to the actual specific expenditures in the preceding period. In analyzing costs especial attention has to be devoted to the indicators which characterize losses and unproductive expenditures.

One important direction in improving the economic mechanism is the introduction of an optimal structure for management. During the next two to three years it is planned to complete the formation of production associations as the basic cost accounting element of industry, and to consistently carry out measures connected with production specialization and cooperation, with the centralization of auxiliary and subsidiary services, and also of the managerial functions of united enterprises and organizations. The task has also been set of improving cost accounting methods of work in the all-union (republic) associations and of gradually introducing them in the work of ministries. It is very important to carefully analyze the results of the work which has been done, to objectively evaluate successes and shortcomings, and to strengthen control over the introduction of general management schemes. A special survey of the structure and hierarchy of management agencies in industry as of 1 January 1980 is being performed for this purpose. In addition, the basic indicators of the work of production and scientific production associations which are being worked out by statistical agencies will provide great help here.

Socialist competition is playing an important and increasing role in the economic mechanism of developed socialism. The new procedure for composing plans creates the necessary preconditions for a further development of counter planning. The composition of a plan begins from below -- with the production associations and enterprises. On the basis of socialist competition and the use of intr-enterprise reserves, collectives work out counter-plans which exceed the assignments of the five-year plan for the given year. These plans which are adopted on the initiative of enterprise collectives and are coordinated with material resources are included in the annual plan. This kind of approach organically combines state planning and the socialist competition of the workers. When the plans are composed this makes it possible to disclose additional reserves and to provide for their planned use, which helps to improve the quality of the plans and the balanced development of all production elements. In their turn, the socialist commitments of labor collectives, backed up by the plan, are set on a more solid

foundation and directed toward the accomplishment of the most important economic tasks. With regard to the new system of indicators which has been adopted for evaluating the work of enterprises, associations, and ministries, it is necessary to change the preparation and analysis of the data on fulfillment of socialist commitments and also the reporting in effect on the adoption and fulfillment of counter-plans.

An improvement of planning is inseparably bound up with the strengthening of planning discipline. Ministries and departments are obliged to ensure the stability of the annual and quarterly plans which have been approved for production associations (enterprises), preventing the correction of a plan in the direction of lowering it beneath the actual level of its fulfillment. In this connection, control by statistical agencies over the punctualness and validity of changes in the plans of enterprises, associations, and ministries is becoming even more important. In order to study planning discipline it is also important to work up data on the number of enterprises for which planning assignments are changed. Control over the punctuality of the assignment by ministries of approved planning assignments to enterprises and associations also has to be more widely introduced into the work practice of statistical agencies.

An improvement of the methodological, economic, and statistical work has to be closely coordinated with a strengthening of the work to ensure the reliability of reporting data and the mechanization of statistical operations. Only an overall accomplishment of the above tasks will make it possible to reach the level of work which corresponds to the demands that follow from the decree of the CC CPSU and USSR Council of Ministers.

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ECONOMIC POLICY, ORGANIZATION, AND MANAGEMENT

STATUTE ON TECHNICAL CONTROL DIVISIONS PUBLISHED

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[Article: "The Enterprise (Association) Technical Control Division"]

[Text] The 11 December 1979 Decree No. 1094 of the USSR Council of Ministers approved the Standard Regulation on the Technical Control Division (Administration) of the Industrial Enterprise (Association) which is being published below.

Within a six-month period the ministries and departments have to work out on the basis of the above Standard Regulation and approve a regulation on the technical control division (administration) of the industrial enterprise (association) of the ministry's (department's) system with regard to the special work characteristic of subordinate enterprises (associations).

It has been recommended that the board of the Central Trade Union Committee and the central agencies of the public organizations which have industrial enterprises establish a procedure for carrying out technical control at subordinate industrial enterprises in conformity with the Standard Regulation.

Standard Regulation on the Technical Control Division (Administration) of the Industrial Enterprise (Association)

1. The division (administration) of technical control is, as a rule, an independent structural subdivision of the industrial enterprise (association). All of the workers of the shops and other subdivisions of the enterprise (association) who are employed solely in technical control come within the technical control division (TCD).

If in the structure of an enterprise (association) other subdivisions which engage in output quality control are provided for, or if they are absent, the duties, rights, and responsibilities specified in the present Standard Regulation are applied to these subdivisions or to the persons who have been made responsible for technical control of output quality.

2. The chief tasks of the TCD are to prevent the production (delivery) by an enterprise (association) of output which does not correspond to the requirements of standards and technical specifications, to approve models (standards), to planning and designing technological documentation, and to delivery and contract conditions, and to prevent the production (delivery) of incomplete output; and also to strengthen production discipline and increase the responsibility of all production elements for the quality of output.

3. An enterprise (association) may realize only output which has been accepted by a TCD or produced by persons who work under conditions of self control. A certificate, passport, data card, or another document which certifies that the output corresponds to the established requirements has to be made out for output.

4. The system of technical control (objects of control), control operations and their sequence, equipment, modes, methods, (control operations mechanization and automation equipment) is an inseparable part of the production process which is worked out (defined) simultaneously with the development of the production technology by the service of the chief production engineer (chief metallurgist, chief chemist, and so forth) of the enterprise (association), or by the appropriate production planning organizations with the participation or agreement of the TCD and is mandatorily fixed in the approved technological processes.

5. The technical control division:

(a) ensures the development and improvement of the system of technical control as one of the most important elements in output quality control at the enterprise (association) for which purpose it:

performs systematic work to analyze the effectiveness of the technical control system, eliminate the causes of the production of low quality output, and eliminate the possibilities of the delivery of such output to consumers, and also to increase the labor productivity of the workers of the TCD;

organizes and carries out the introduction of progressive methods of controlling and evaluating output quality, including active control, automatic and statistical methods of control, and also statistical methods of regulating technological processes and analyzing and evaluating output quality and control operations mechanization and automation equipment;

(b) carries out entrance control over raw materials, materials, semi-finished goods, component products, and tools intended for basic production which are received at the enterprise (association), control over their

correspondence to the established requirements when they are moved from the warehouse to production and from shop to shop, operations control, acceptance control for finished output, and other control operations which are stipulated by the approved technological process;

(c) assigns and performs sample checks not stipulated by the approved technological process of the quality of finished output, raw materials, materials, semi-finished goods, and component products, the quality of the performance of individual technological operations and conversions, the quality and condition of production equipment and tools, production conditions, and the packaging, storing, loading, and transportation of output, raw materials, materials, component products and tools within the enterprise (association), and also other checks which are necessary to ensure the production of output in accordance with the established requirements;

(d) carries out selective control over the observance of technological discipline -- the correspondence of production operations to the requirements of the approved technological charts and other technological documents;

(e) makes up documents which certify the correspondence of finished output which has been accepted to the established requirements, and also documents which contain technical substantiations for the making of complaints against suppliers of raw materials, materials, semi-finished goods, component products and tools which have been rejected as defective during the performance of entrance control;

(f) jointly with the workers of other subdivisions of the enterprise (association) presents finished output to the client's representative in cases stipulated by its delivery conditions;

(g) participates in tests of new and modernized output models, and also in the coordination of technical documentation for this output in order to ensure the conditions for effective control over its quality;

(h) takes part in organizing the collection and performs the analysis and generalization of statistical and other data about the exploitational and consumer properties of the output produced by an enterprise (association; including the data of guarantee workshops and other repair enterprises), in analyzing the reasons for the appearance of defects in output in the process of production, and also in working out measures to eliminate design and production defects in output and to prevent defective output, and exercises control over the realization and effectiveness of these measures;

(i) keeps account of complaints regarding a lack of correspondence of output delivered by an enterprise (association) to the established requirements and prepares output quality reports in the form approved by the USSR Central Statistical Administration for presentation in the prescribed manner;

(j) participates in work to prepare output for certification and to provide technical support for the certification, and exercises control over the observance of certification conditions during the process of production;

(k) controls the performance of work to isolate defective output and to grade it accordingly;

(l) exercises periodic selective control over the quality of output produced by shops, sectors, teams, and individual workers who have been transferred to self control;

(m) takes part in preparing contracts regarding the delivery to the enterprise (association) of raw materials, materials, semi-finished goods, component products, and tools designated for basic production in its part in determining the conditions for quality acceptance;

(n) works out proposals on increasing demands upon the quality of output produced and consumed by an enterprise (association), on improving the technical norm documentation which establishes these demands, and also proposals on improving the organization of socialist competition which are aimed at stimulating the production of high quality output and struggling against the production of poor quality output.

It is Not Permitted to Give TCD Workers Responsibilities to Perform Production Operations Which are Not Connected with the Performance of Technical Control.

6. The TCD of an industrial enterprise (association) is headed by the chief of the division who is directly subordinate to the director of the enterprise (association).

Appointments to the position of chief of the TCD of an enterprise (association) and releases from this position, and also the application to the TCD chief of incentive and disciplinary measures are carried out by a superior agency upon representations from the director of the enterprise (association). In individual cases these questions may also be decided upon the representations of the chief inspectorate for output quality of the ministry (department) or of another subdivision which has been made responsible for these functions.

Appointments to the position of chief of the TCD of an enterprise which is a member of an association and release from this appointment, and also the application to such a chief of incentive and disciplinary measures is carried out by the association's director upon representations from the director of the enterprise and chief of the TCD of the association.

In order to strengthen control over output quality the ministry (department) may establish a different procedure of subordination for the TCD chief, including to a superior agency, the chief inspectorate of output quality of the ministry (department), or to another subdivision which has been given its functions.

7. The chief of the TCD:

(a) organizes the work of the TCD, takes care of the selection and disposition of TCD cadres and controls their work, and organizes technical training and advanced training for TCD workers;

(b) makes the final decision regarding the acceptance of finished output or classifying it as defective in cases of difference between the workers of the TCD and of production subdivisions;

(c) informs the territorial agencies of the USSR State Committee for Standards and the USSR Procurator's office at the supplier's location about cases of the repeated or large-scale reception of output which does not correspond to the standards, technical specifications, or models;

(d) reports to a superior agency, the main inspectorate for output quality of the ministry (department), or to another subdivision which has been made responsible for the inspectorate's functions on cases of the receipt of complaints regarding a lack of correspondence to the established demands of output produced by the enterprise (association), and on the results of the examination of these complaints and the measures taken;

(e) participates in deciding questions regarding the transfer of individual workers, teams, sectors, and shops to self control, and also, in the necessary cases, makes representations regarding withdrawing the right to self control from the workers and subdivisions of the enterprise (association).

8. The TCD chief has the right:

(a) to halt acceptance control for output which has had repeated defects until the elimination of the reasons for these defects;

(b) to prevent, with the simultaneous written notification of the director of the enterprise (association):

the use in production of raw materials, materials, semi-finished goods, component products and tools which do not correspond to the established requirements and do not ensure the production of good quality output;

the production of output at individual machine tools, units, sectors, and shops which do not ensure the observance of the established technology and the production of output in accordance with the demands of the technical norm documentation;

the production of new output if the planning and designing and technological documentation for this output does not ensure compliance with the requirements of the standards and technical specifications, or if the necessary conditions for an objective evaluation of the quality of this output are lacking;

the sale of output which has not been accepted by the TCD;

the use of control and measuring equipment which has not undergone tests in the established manner or which is defective;

(c) to make demands which are mandatory for execution upon the subdivisions and officials of the enterprise (association) regarding the elimination of the reasons for the appearance of output defects and of violations of production technology and to carry out other necessary measures to ensure the production of output which corresponds to the established demands;

(d) to present the enterprise (association) management with proposals regarding the responsibility of officials and workers of the enterprise (association) who are guilty of producing output which does not correspond to the established requirements, and also proposals on reducing the amounts or eliminating the bonuses of the chiefs of shops and sectors and of foremen and team leaders who do not ensure the production of output in correspondence with the established requirements;

(e) to make direct representations regarding questions of output quality and improvement of organization of technical control to a superior agency and to the main inspectorate for output quality of the ministry (department) or to another subdivision which has been made responsible for the inspectorate's functions.

In the event that the instructions of the chief of the TCD have been unjustifiably annulled he is obliged to communicate this to a superior agency and to the main inspectorate of output quality of the ministry (department), or to another subdivision which has been made responsible for the inspectorate's functions.

9. Disagreements between the director of an enterprise (association) and the TCD chief are examined by a superior agency with the involvement of the chief inspectorate of output quality of the ministry (department), or of another subdivision which has been made responsible for the inspectorate's functions.

10. The TCD chief is equally responsible with the director and chief engineer of the enterprise (association) in accordance with the legislation in effect for the production of poor quality output, output which does not correspond to the standards and technical specifications, or incomplete output.

The TCD chief is also responsible:

for the organization, condition, and improvement of the technical control system of the enterprise (association);

for the nonfulfillment of the duties which have been given to the TCD and for the incorrect use of the rights which have been granted it;

for the incorrect and unpunctual writing up of documents which certify the correspondence of the output produced by an enterprise (association) to the established requirements;

for the use at control operations of control and measuring equipment which is incorrect, defective in operation, and which has not undergone the established tests.

11. The workers of the TCD are responsible for incorrect evaluations of output being controlled.

In the event of the production of poor quality output responsibility for this is borne by the heads of the appropriate structural subdivisions of the enterprise (association), the foremen, and the other workers (including TCD workers) who are at fault in the production of this output.

12. The structure and staff of the TCD of an enterprise (association) are worked out in conformity with the standard structures and staffs which have been approved by the ministry (department) with regard to the character of production and also the labor intensiveness of the control operations, and are approved by the director of the enterprise (association).

ECONOMIC POLICY, ORGANIZATION, AND MANAGEMENT

MANAGEMENT OF INVESTMENT FINANCIAL-CREDIT RESOURCES EXAMINED

Moscow DEN'GI I KREDIT in Russian No 12, Dec 79 pp 32-37

[Article by Doctor of Economic Sciences L. V. Braginskiy: "The Problems of Managing the Financial-Credit Resources of the Investment System"]

[Text] One of the important directions of the party's economic policy is the expansion and radical renewal of the productive capital. This is precisely why the investment policy and the management of reproduction of fixed capital are crucial in the state's economic policy. The forms and methods of management are constantly being improved and provision is thereby made for efficient utilization of the economic potential of the national economy.

It is important for this reason to define the economic significance of the concept "investment process." We know that in literature and practice we often see an equal sign between the concepts "investments" and "capital investments." This is due to the fact that investing denotes, per se, investment of a certain proportion of the assets for expansion of fixed capital. Thus, V. Pybin and A. Khachatryan say: "It is therefore desirable to tie in the completion of the investment cycle with the completion of a stage of construction."* This interpretation of the investment process cannot, we believe, be considered satisfactory either from the theoretical or the practical standpoint. Let us at least take cognizance of the position of the bank in long-term crediting. You see, if the investment cycle is concluded with the construction of an installation, then the economic loans lose their source of liquidation: the construction object cannot of itself be a resource for the liquidation of credits. But failure to make full use of the capacities and delay in putting installations into operation result in losses for the enterprises as well as the need to find additional funds for paying off loans. It is no coincidence that in the work of Stroybank one came across instances where the ministries allotted funds to the enterprises for the liquidation of previously obtained loans.

*DEN'GI I KREDIT ["Money and Credit"], 1979, No 2, p 38

We are aware that opinions such as these about limiting the investment process to just capital accumulation have already appeared in economic literature. As a matter of fact, they would seem to substantiate the current organizational and economic methods of managing the reproduction of the fixed capital of the national economy. The distinctive feature of these methods is the isolation of the various cycles of the reproduction of fixed capital, i.e., there is not sufficient coordination between the processes of planning, construction and material supply (the machine-building industries are a case in point); also, the use of the fixed capital and the coordination is not fully oriented to the final results of the investment cycle considered as a unified entity.

One can judge this on the basis of at least the following fact. The activity of the planning organizations is planned and motivated on the basis of the preparation of planning and estimate documentation; that of the construction organizations on the basis of fulfillment of the assignments for putting installations and commercial construction production into operation; that of the machine-building and other investment industry sub-sectors on the basis of the shipment of equipment; and that of the customers on the basis of the realization of the planned net output (and income) based on the new capacities. Thus, the results of the activity of the individual links and subsystems of the investment system are determined by their local planning indicators and are not sufficiently coordinated with the final results of all of this sphere of activity.

This divided and economically isolated management of the various links of the unified investment process does not conform to the modern level of development of economic relations. At the 25th CPSU Congress Comrade L. I. Brezhnev emphasized the following: "Tomorrow requires more radical measures. We need to change the very approach to the planning and utilization of the capital investments and to carry out the planning of the existing production and new production as an integrated whole. Capital investments must be allocated to the ministries and departments, not in general, but for a planned increase in production."

In this essentially new situation the investment process is defined in terms of the interrelationship between the decisions taken with respect to capital investments, the use to which these investments are put, and the final results obtained. The theoretical situation vis-a-vis expanded reproduction as an organic unity of the processes of production, accumulation, distribution and consumption thereby obtains a wholly concrete and practical content.

The recently adopted CPSU Central Committee and USSR Council of Ministers decree on "Improvement of the planning and intensification of the impact of the economic mechanism on the task of stepping up the efficiency of production and the quality of the work" made important changes in the existing system of management of the investment process. In particular, it provided for the allotment in the five-year capital investment plans of

funds for development of the physical production sectors for the planned increase of volume of output and services. In line with this, it was decided to amend the planned volumes of capital investments so as to insure maximum utilization of the fixed capital.

We believe that investments should be defined as long-term investments of material and monetary resources in renewal and expansion of the fixed capital and intensification of its use for the purpose of increasing national production. This interpretation stipulates inclusion in the investment process of (1) the stage of capital investment planning (including the production preplan work and the project preplan work as well as the preparation of the planning and estimate documentation), (2) the stage of utilization of the capital investments (construction and purchase of production facilities), (3) the stage of utilization of the new capacities and installations, and (4) the stage of development of simple and expanded reproduction of producer goods as well as management of the resources involved (budgetary funds, credit, etc.). The mechanism for management of the investment activity thereby represents the totality of the forms and methods of systematic regulation of the processes of expanded reproduction of fixed capital at all the levels of economic operation.

Constant renewal of the process of production of economic goods requires concurrent replenishment of the accumulation resources as well. At the same time, the rates of the growth and scale of national production are directly dependent on the effectiveness of the preceding investment cycles. All this indicates the need for a strict accounting of the resource aspect of the investment activity, which would comprise the basis for the alignment of this activity with all of national reproduction. The extensive development of budget financing is due to the inadequacy of the relationship between the capital investments and the use of the fixed capital. This is why the accumulation of the resources of the new capital investments on the basis of maximum utilization of the organization's own production potential means, from the economic standpoint, the amalgamation of all the investment process participants in a single system.

Thus, the process of improvement of the management of investment activity must provide for (1) close coordination between the process of planning of capital investments and the accumulation of monetary and other resources, (2) a relationship between decisions taken vis-a-vis capital investments and the production process, and (3) orientation of the individual processes toward the final results of the whole investment process.

As we know, in 1977 a change was made in the planning of capital investments. The change amounts to further centralization of the management of capital investments. The amalgamation of all the types of capital investments in the plan helps first, to meet the requirement for unity in implementation of technical policy and second, to achieve the priority

goals of the policy of development in the face of a definite shortage of labor and material resources. Finally, it is expected to facilitate overcoming a number of negative factors in the investment sector of the economic system.

With the allocation of noncentralized capital investments, substantial amounts of physical resources were diverted from the sphere of centralized investments. This had an adverse effect on the overall structure of reproduction and made for an atmosphere of tension in the investment sector. The result was increasing dispersion of the capital investments and prolongation of the time periods for construction. There evolved a definite cyclicity in the rates of growth of the capital investments for the years and within the year as well as a number of other manifestations of lack of balance.

However, it needs to be emphasized that the intensification of centralism in the management of capital investments cannot be viewed in isolation from the accumulation of resources, including monetary resources. A unified centralized plan is by its very nature a complete resource-oriented national economy balance which encompasses all the levels of management of the economic system. It seems desirable to dwell in more detail on this point.

The five-year and yearly national economic plans constitute a special-purpose program for economic development for a definite period, a program which determines the chief directions of the growth of national production, accumulation and consumption. These plans also specify the sources for the supplying of the physical resources for the planned assignments. As for the monetary resources, the replenishment of them is regulated by the independent financial and credit plans--the state budget and the credit plans and financial and credit plans of the ministries and associations.

The aforementioned CPSU Central Committee and USSR Council of Ministers decree provides for the preparation of a yearly supply document as a component of the five-year plans, this document to contain the balances of material and labor resources and production capacities as well as the financial balance sheet. This will undoubtedly improve the relationship and the balance between the physical and the financial flows. Also, the compilation of individual material and financial balance sheets may, we believe, result in a lack of financing for a part of the planned capital investments and create the need for subsequent review and revision of the financial and credit plans. We therefore regard as extremely productive the suggestions calling for the preparation of a single financial plan for the country and a consolidated material and financial balance sheet which should coordinate the production of gross national product and the centralized financing of the national economic processes and bring the incomes and expenditures into conformity by means of the financial and credit system.*

*See Isayev B. L. "The Balance Sheets of Intersectorial Financial Relations." Moscow, Nauka, 1978.

However, the implementation of this suggestion is still wholly inadequate for resolving the problem of balancing the physical and financial flows in the investment sectors. It is necessary that the accumulation of financial resources be itself based on the optimum proportions of distribution of the national product and that it stem directly from the basic objective laws governing socialist accumulation.

It is important at this point to take note of the following.

First, the accumulation of monetary resources at all levels--the state, the bank and the individual enterprises and associations--must meet the requirements for effectiveness. Whereas a unified norm for the effectiveness of capital investments, as we know, amounts to 15 percent, the payments of the enterprises for capital (fixed and part of the working capital) amount to not more than 6 percent and the interest rates for long-term credit are very low. Thus, the local effect, which for the enterprises appears in the form of profit assigned by them, does not conform (or does not sufficiently conform) to the unified national economic requirements for effectiveness. In other words, a considerable proportion of the additional profit derived from the use of the means of labor remains for the time being under the jurisdiction of the individual operational links.

Secondly, the profit structure of the individual enterprises includes a definite place for profit resulting from an optimum location as well as the maintenance of skilled labor resources. Improvement of the planning justifications for operational decisions would be furthered by the introduction of payments of this type for the use of natural resources (including payments for the use of minerals), for the use of land areas set aside for construction and other nonagricultural needs, and also for the recruitment of highly skilled workers.

Thirdly, the profit distribution system in effect until recently did not motivate the enterprises for profit increases, including increase of the state's financial resources, because the development of the enterprises' own funds for capital investments and the discharge of their basic debt on long-term loans were carried out by the enterprises after the formation of the economic incentive funds. Consequently, despite the fact that under the existing terminology the term "unencumbered profit balance" referred to that portion of the profit which was paid into the budget after the planned expenditures were made, it would nevertheless be correct to designate as "unencumbered" the portion which was left after the payments to the budget and the bank and after the accumulation of incentive funds, i.e., after the accomplishment of the normative payments.

You see, in drawing up the financial plan, either part of this profit balance was left in the enterprise's own fund for capital investments or else funds were allocated from the budget for fulfillment of the capital investment plan. In essence, there is not any great difference between

these two modes of reinforcement because the distribution instruments only play the proper role when they serve to increase the enterprise's motivation. As for repayment of the loans to the bank, as we have already noted, when the enterprise is lacking enough of its own funds, the financial plan provides for a redistribution of the profit obtained from other enterprises in the industry.

On the whole, it can be said that a certain proportion of the profit led to an increased demand for capital investments on the part of the enterprises and undoubtedly intensified the shortage of investment resources. If one may say so, there was assigned to "commerce" the part of the monetary resources which rightfully belongs to all of society and should be included in budgetary income.

Beginning with the 11th Five-Year Plan, we will gradually introduce on the basis of the assignments approved in the five-year plan a stable norm for deductions from the profit which accrues to the industrial ministries. The use of these funds is stipulated for the financing of capital investments, for the paying off of loans and the interest on them, and for the accomplishment of other planned expenditures and deductions. This will also undoubtedly have a favorable effect on the establishment of the fund for capital outlays.

In addition to this, we will take note of two more circumstances of no little importance.

First. The existing pricing system does not permit us to make full use of price as an instrument for the adoption of optimum investment decisions. The use of prices adapted to the industry production costs and not sufficiently attuned to the effect vis-à-vis output consumption, may lead to a distortion of the proportions in distribution of capital investments and ultimately to a deterioration of the fixed capital structure. Consequently, orientation toward the actual profitability of the enterprises and industries may entail the perpetuation of inertia in the implementation of capital investments.

Now in preparation are suggestions for further improvement of the system of wholesale prices in industry. It would also be well to keep in mind that for purposes of regulating the demand for capital investments it is advisable to bring the prices into conformity with the level of socially necessary costs and to not lose sight of the effectiveness of the consumption and the quality of the output as well as the social usefulness of the means of labor on the whole.

Second. It is also important to strengthen the economic methods of regulating the enterprises' expenditure of its own assets for capital investments. As we know, (except for the kolkhozes), there is now no deposit interest on funds kept in the accounts in the bank. Thus, the derivation of any (even the smallest) effect from the investment of these funds would

seem economically preferable to keeping them in the bank. The establishment of a fee for capital investment funds in accounts in the bank should and can fulfill the function of a definite limitation on inefficient use of these funds. It is felt that for the introduction of deposit interest it is necessary to view it not only as an incentive for attracting funds to the bank but on a more widespread scale from the standpoint of strengthening the bank influence in the matter of establishing a balance between the investment sector and all of national production.

When all the financial resources of expanded reproduction have been brought into accord with the requisite material supply, it means that we have achieved coordination between the goals of society as a whole and those of its individual links. With respect to the bank long-term credit system, this, in particular, means that the price charged for funds on loan--interest--reflects the actual relationships between the physical and the monetary assets in the national economic plan and the extent to which they are balanced. The loan interest rate now being applied was established many years ago and has been in effect all this time regardless of the actual status of the balance in the investment sector of the national economy. Thus, in 1965 the amount of incomplete construction was 10/33 of the 1978 level and the proportion of it in the yearly work volume reached 85 percent, an increase of 16 percent. The interest rate, i.e., the price paid for this limited resource did not undergo any changes during this time. We believe that it is desirable to prescribe in the national economic plan simultaneously with the other economic norms a single average interest rate for credit on the basis of the balance stipulated in the plan between the resources and the outlays for capital investments. In this capacity the bank's role in the credit process will truly reflect the requirements for effectiveness of the investments on the basis of the actual relationship between demand and supply.

The vital characteristic of the investment process is the close relationship between the capital investments and the production process. This relationship is manifested primarily in the fact that the production process is, to a considerable extent, the result of the use of investment wealth and fixed capital. The demand for capital investments is itself dependent on the extent of use of the fixed capital. There is a distinct inverse relationship between these two factors. The greater the amount of fixed capital the less the requirements for new capital investments. Hence, a substantial increase in the effectiveness of the capital investments should be achieved by the policy set forth in the aforementioned decree of allotting funds for the construction of new enterprises and expansion of existing ones only when the national economy requirements for a particular type of output cannot be met by the existing enterprises because of remodeling and technical retooling.

Further. The divided allotment of resources for replenishment of fixed and working capital contributes in some degree to the development of disproportions in production. It is calculated, for example, that in industry one

ruble of increase of working capital has had the same effect as more than three rubles of increase of fixed capital. Thus, whereas in 1978 fixed production capital amounted to 1,006 billion rubles, or 475 billion rubles more than in 1970, the working capital figures were 381.3 billion and 169.5 billion rubles respectively. Without dwelling on the reasons for this situation, we will say only that the superior growth of fixed capital is the result of the establishment of a system for replenishment of the capital investment resources. At the same time, there is no cost accounting procedure for shaping the growth of the working capital norm. The credit resources for increasing the fixed and working capital are also split up. If we examine the process of production and capital investments as a single entity, then we must conclude that separating the process of accumulation and utilization of fixed capital from the working capital is scarcely justified. The source of the formation of these and other assets should be, we believe, the assets in the cost accounting fund for the development of production as well as the credits allocated in circumstances which are somewhat different from the existing ones.

At present fixed and working capital are the object of credit, whereas repayment of loans is made from profit and proceeds from the sale of output. We believe the object of credit should be the enterprise and its production activity and not the structures and reserves. When the enterprises obtain loans for investment activity, they should not just build an installation but should also make provision for its intensive use. The granting of credit enables us to make the most intensive impact on the investment activity; the credit participates in all the stages of the investment process and it comes back in the calendar periods as a result of the productive use of the means of production. In this the role of the bank therefore becomes particularly significant because credit, by its very nature, is an economic means of effective circulation of the fixed and working capital in the economy.

By allocating credits for the investment activity the bank is able to exert a direct influence on the final production results (when there is a differentiated approach to the loan periods), thereby motivating the processes of intensification of capital usage.

It is also very important to see to it that when planning the investment activity and, particularly, when determining the credit resources required, consideration be given to the so-called absorptive capacity of the enterprise, i.e., its capacity to make full and timely use of the capital investments allowed it. In evaluating the effectiveness of long-term credits this circumstance is often not given sufficient consideration and in practice this results in immobilization of the monetary assets in prolonged incomplete production. Because of this, we believe that in working out future measures for improvement of the planning of capital investments it is desirable to establish specific proportions as between the allocated funds and the value (according to the balance sheet) of the fixed and

working capital of the enterprises. For the bank this means that in the differentiated interest procedure the rate is reduced or increased as specific proportions are achieved as between the capital investments and the charter fund of the enterprise.

The problem of orienting all the participants in the investment process toward the final results boils down to improvement of both the vertical and the horizontal links. It entails centralized planning of the investment system as an integrated whole as well as internal balance for its subsystems. As we showed above, the participants in investment activity are at present controlled by local criteria: there is no multiple indicator for the effectiveness of the entire system and no planning indicators oriented in this way for the subsystems. In our opinion, as an integral measure of effectiveness one may suggest an indicator of net income per ruble of aggregate investments. The latter will include an order detailing the capital investments and the costs incurred by the planning organizations for drawing up the planning and estimate documentation and by the customer enterprises for putting the capacities and fixed capital into operation. Of course, the shares of all the subsystems in the total effort of the investment system are not the same; their contribution depends on the actual relative share in the making of the final output of the entire investment system. These proportions should also be reflected in the planning and estimate documentation for the making of the investment object and for the full work load. They serve as the basis for the distribution of profit and the generation of economic incentive funds in the subsystems. Thus, the planning and estimate documentation should encompass all the stages of production of the final investment output.

The balance status of the investment system is to a considerable degree dependent on the "equilibrium" of the interests of all its participants. At present this equilibrium has not as yet been achieved. Analysis of the economic and financial activity of the contract construction and installation organizations shows that the extent of their technical equipment (and accordingly the level and rates of growth of the labor productivity of the construction workers) is below the national economy average. Suffice it to say that in 1978 the capital-labor ratio for the construction workers was 51.9 percent lower than the figure for the country as a whole. In 1978 the ratio of profit to gross national product produced was 11.1 percent in industry and 8.2 percent in construction; construction's share in the generation of the country's national income was 10.8 percent and in the national economy's aggregate profit only 7.2 percent. It is obvious that some of the profit generated in construction production is being realized outside the construction industry, that it is retarding the industry's development, and that it is not conducive to efficient utilization and mobilization of the internal reserves and, consequently, to increased motivation with respect to the final results of the activity.

The establishment of internal equilibrium in the investment system is tied in with redistribution of the effect among the subsystems in line with

their specific contribution to the final result and with a view to strengthening the continuity and, consequently, the responsibility of the individual participants. The solution of this problem depends on improvement of price formation and expansion and improvement of the financing and credit system. Let us dwell for a moment on the problems associated with the use of the financial and credit levers.

The relation to the investment process as an integrated whole requires, we believe, a different approach to the formation of financial reserves, the provision for which began with the 11th Five-Year Plan. Full "disbursement" of the financial resources among the investment participants entails partial underexploitation of them in the interests of the whole system and it precludes the possibility of a flexible redistribution among the subsystems. A distinctive feature of the investment process is the significant influence of the factor of indefiniteness at the time of making the decision on the capital investments and the factor of the complexity of the subsequent corrections in these investments. All this urgently requires maneuvering with the reserve and using it in the interests of "unravelling bottlenecks," i.e. reinforcing the resources of the individual subsystems for the purpose of increasing the extent of their equipment, closing the financial loopholes resulting from the existence of various prices for the individual types of work, etc. In the matter of further development of the credit relations, the role of bank credit in the system of financial reserves becomes especially important. The point is the chief complication in the development of the reserve is the matter of possible immobilization of the monetary resources. These dangers are obviated by the very nature of credit as an instrument of redistribution of the constantly functioning accumulations in the process of turnover of the value of the funds in the national economy. The development of a credit reserve makes it possible, we believe, to strengthen the control functions of the bank and to intensify its impact on the effectiveness of the entire investment process since maneuvering with the reserve is an important means of intensifying the work.

The role of credit can also be significantly escalated by converting to the "sliding" method of granting loans. The essence of this method is that in each stage of the investment process the loan is paid off from the income and results of the next stage. As we know, there are now being extended the long-term credits granted to the construction contract organizations. The regulations stipulate that payment for completed "under key" construction projects is to be made on the basis of credits for incomplete production. This affords the bank additional opportunities to influence the construction time periods by applying differentiated interest rates, etc.

We must not, however, lose sight of the fact that in granting credit for all the incomplete production the bank is in essence assuming the role of financial responsibility for the progress of the construction because if the contractor is lacking or has insufficient funds to pay for the completed project, then he also has no real resources for payment of any high

("punitive") interest amounts. In the final analysis, the bank itself suffers the "punishment." When the construction work is of long duration (up to 10-12 years) and the contractors' own working capital has been reduced, their credits may in a number of instances involve a slowdown in the turnover of the loan fund, with all the consequences stemming from this eventuality.

In other words, the role of the economic contract between the contractors and the customers must be significantly enhanced. We dare say that when in any particular case loans are granted to the customers for payments for work done by the contractors, i.e., in essence revising the loan indebtedness, this step may stimulate the customers' financial incentive for getting the work completed. We would call to mind the fact that delay in putting installations into operation through the fault of the customers has reached 20 percent of the total number of cases of failure to complete construction on time. Of course, the "sliding" method concerns all the participants. The credits granted to the planning organizations and to the enterprises which supply equipment also make it possible, in our opinion, to step up their responsibility for the final objectives of the process, i.e. in essence for the quality of their work and output. Clearly, the process of establishing an investment system as a definite economic community requires substantial improvement of the management of capital investments. It is important also that the investment resource base answers these new requirements.

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ADDITIONAL INFORMATION ON THE PASSPORT OF A PRODUCTION ASSOCIATION

Moscow EKONOMICHESKAYA GAZETA in Russian Nos 3, 4, Jan 80

[Article by N. Cheshenko, Deputy Chief of the Main Administration of the USSR State Committee for Science and Technology: "Passport of an Enterprise: Procedure for Compiling." For related article see "Statute on the Passport of a Production Association published in JPRS 74943, dated 16 Jan 80, No 907 of this series, pp 10-53]

[No 3, Jan 80, p 7]

[Text] At the request of readers, EKONOMICHESKAYA GAZETA is publishing consultations on various aspects of improving the economic mechanism. The first two consultations were devoted to matters of planning net output (standard). In the consultations that the editors begin publishing in this edition, attention will be given to the procedure for compiling the basic sections of the passport of a production association (enterprise). The subject of the first consultation is basic questions on compiling the passport and determining production capacities.

In the decree of the CPSU Central Committee and the USSR Council of Ministers of 12 July 1979 the ministries and departments were advised to compile a passport for each production association (enterprise), which should contain data concerning the availability and use of production capacities, including the shift coefficient, the organizational and technical level and specialization of production, and also other technical and economic indicators that are required for compiling five-year and annual plans.

General requirements

The availability of passports will make it possible for the labor collectives and the territorial and sectorial management organs to objectively evaluate potential capabilities to rationally use production space, equipment, raw materials, materials and other resources in order to ensure the maximum output of product required by the national economy. Passport data can be used by the collectives of the associations and enterprises when

seeking reserves for additional product output and formulating counter plans, when analyzing the possibilities to accept additional orders in order to better use production capacities.

The statute on the passport of a production association (enterprise), which was passed by the USSR State Committee for Science and Technology, the USSR Gosplan, the USSR Central Statistics Administration, the USSR State Committee for Standards and the USSR State Committee for Construction Affairs on 4 October 1979, calls for the compilation of the passport within no more than nine days after submitting the annual accounting report to its higher organization. This means that work must now be in progress to prepare the forms and to fill out the sections of this document. The passport, which is compiled according to the totals of the work of the association (enterprise) in 1979, will be used to prepare the draft plans for the Eleventh Five-Year Plan. For this reason the responsibility of the managers of enterprises and of workers in the economic services to see that the passport is compiled correctly and on a timely basis is considerably heightened.

To render methodical assistance to the associations (enterprises), as experience of several ministries shows, it is advisable to determine the lead organization of the sector. It is important to ensure the necessary coordination and control over the compilation of the passports. This task can be given to the workers in the economic planning and production planning administrations of the ministries. Nearly all services in the associations and enterprises are engaged in compiling the passports; for this reason, as available experience demonstrates, it is advisable by order of the director to clearly define the obligations of the plant services in filling out the forms, their overall coordination, and also to establish time periods for this work.

The passport is compiled using only documented data, which must correspond to bookkeeping and statistical accounting. Methods for estimating indicators are determined in accordance with existing all-union and sectorial standard materials.

The passport forms of an association (enterprise) in the sectors of industry must correspond to standard models provided in the appendix to the "Statute on the passport of a production association (enterprise)". Each form has a name and a so-called identifier /Identifikator/, which is found in the lower right-hand corner. The identifier provides the form number, page number, number of pages, association code and ministry code.

The association code is filled in in accordance with the "All-union classifier /klassifikator/ of enterprises and organizations", which was passed by the USSR State Committee for Standards on 1 December 1977; the ministry code is filled in in accordance with the "All-union classifier". The system of symbols for the organs of state administration of the USSR and union republics", which was passed by the USSR State Committee for Standards on 18 July 1974. In the identifier of Form 1.1 the codes "Form of document according to OKUD" and "Industrial association" are not entered until the

code is conferred to the passport and the "Classifier of the organs of middle management" are approved.

It must be pointed out that some ministries (aviation, electrotechnical, and the food industry and others) already have experience in compiling passports by their subordinate associations and enterprises. This experience was used in designing the passport's standard forms. At the same time it should be pointed out that the ministries have the right to add indicators to the standard forms and even to introduce additional new forms, which reflect the specific nature of the sector. Moreover, the standard forms do not change and the indicators contained in them are not excluded.

In the first two forms (forms 1.1 and 1.2) of the first section of the passport data is provided concerning the name of the enterprise, i.e., address information is provided which customers can use to find out where it is located and its bank and transportation requisition numbers; the name of the manager, the telephone number for information, telephone exchange and teletype number are indicated.

Estimating Capacity

The second section of the passport contains data about the production capacity: its use, equipment load, introduced capacity and its assimilation. An objective characterization of the production capacity makes it possible to find reserves for production growth, to determine trends of capital investments, the need to increase production capacities by technical reoutfitting, reconstruction, and eliminating "bottle necks" in production.

Production capacities and their use (Form 2.1) are characterized by data concerning the annual average capacity (planned and actual), capacity at the end of the year (planned and actual) and the use of the annual average capacity (in percentage). Production capacity is measured in the same units that are used for planning and accounting of product output, such as thousands of tons of refined crude oil, millions of cubic meters of natural gas, and thousands of tons of coal.

The estimating of the indicators of production capacity is done in accordance with the "Basic statutes for estimating the production capacity of existing industrial enterprises, and production associations (combines)", which were passed by the USSR Gosplan and the USSR Central Statistics Administration on 13 January 1977. Product code is filled in according to the "All-union classifier of industrial and agricultural product", which was passed by the USSR State Committee for Standards. Estimating the capacity for machine building enterprises is to be done according to the "Intersectorial instructions for determining the production capacity at machine building and metal working plants."

The estimate encompasses all equipment of the basic production shops and equipment in warehouses that is to be put into operation in the basic shops during the period of the estimating.

Progressive norms and standards are used when estimating production capacities. Determination of the average annual capacity and the output capacity of the enterprise at the end of the year's accounting is very important. The planned and actual values of the average annual capacity are estimated according to planned and actual product list.

The capacity as of the end of the year is defined as the sum of capacities as of the beginning of the year plus increase and withdrawal from use. All of this is estimated in accordance with planned and actual data as of the end of the year.

The percentage of usage of the average annual production capacity is defined as the ratio of the actual annual product output to the actual value of the average annual capacity.

The passport shows the planned and actual value of the shift coefficient for equipment operation and the equipment load coefficient. Moreover the shift coefficient is to be estimated for enterprises having a steady production, while the equipment load coefficient is estimated for enterprises having an irregular production.

Data concerning introduced capacity and its assimilation (Form 2.2) are submitted in a separate form. Time period norms for the assimilation of planned capacity are established in accordance with USSR Gosplan instructions "Concerning norms for time periods to assimilate the planned capacities of enterprises and construction projects put into operation since 1 January 1978."

A comparison of the amount of product output, estimated on the basis of assimilation norms of introduced capacities, with actual product output obtained from these capacities, make it possible to reach conclusions concerning the achievements or unfinished work of the associations and enterprises in this important national economic matter.

[No 4, Jan 80, p 8]

[Article by N. Cheshenko, Deputy Chief of the Main Administration of the USSR State Committee for Science and Technology, and V. Savosin, Chief of the Sector of the All-Union Scientific-Research Institute for Problems of Organization and Management of the USSR State Committee for Science and Technology: "Passport of an Association, Enterprise: Procedure for Compiling Section III 'Production of Product'"]

[Text] In Volume 3 of EKONOMICHESKAYA GAZETA under this heading we published a consultation, in which general questions on compiling the passport and determining production capacities were examined. Today we discuss the procedure for compiling the third section of the passport.

The third section, "Production of product", is one of the most important sections in the passport of an association (enterprise). The data that it presents help to objectively evaluate the achievements of the collectives in fulfilling the planned indicators for production and the manufacture of highest quality product, and to plan ways of finding reserves for additional product output when formulating counter plans.

Product List and Product Volume

The CPSU Central Committee and USSR Council of Ministers Decree of 12 July 1979 indicates how to make an evaluation of the results of economic activity of associations (enterprises) of industry and also their economic stimulation based primarily upon the fulfillment of plans for deliveries by product list and within established time periods. Taking into consideration that the strict adherence to contracts, supply authorizations and orders is a pledge for the successful fulfillment of plans for production, one of the basic indicators that characterize the final result of an enterprise's activity must be the "volume of sales of product allowing for the fulfillment of delivery pledges." Data concerning fulfillment of this indicator are reflected in Form 3.1 of the passport in paragraphs 3 and 4. When estimating the indicator economists will be helped by the "Instructions on the procedure for estimating the fulfillment of assignments and pledges for product deliveries when awarding bonuses to the managers, engineering and technical workers and employees of industrial production associations and enterprises and supply organizations", which was approved by the USSR Gosplan, USSR State Committee for Material and Technical Supply, the USSR State Committee for Labor and Social Problems, the USSR Ministry of Finance, the USSR Central Statistics Administration, and the All-Union Central Council of Trade Unions on 17 August 1977.

Two other indicators are provided in this same form: "Volume of product sales in wholesale prices given in the plan" and "Production of product in physical terms". These indicators can be estimated in accordance with the "Standard instructions for compiling the accounts of industrial enterprises for the fulfillment of the product plan", which was approved by the USSR Central Statistics Administration on 11 May 1971.

The values of the indicator of product sales in wholesale prices given in the plan are entered in paragraphs 3,4 and 5 of Form 3.1. Data concerning the volumes of product sold must correspond to the data presented in Form No 8 "Accounting of a production association (enterprise) and an industrial enterprise concerning fulfillment of the product plan."

Product output is shown in physical terms in the passport with a breakdown into product manufactured according to the plan approved by the higher-ranking organization and according to the plan approved by the enterprise itself. Moreover units of measurement are used which reflect the volume of product taking into consideration its consumer properties. This requirement upon units of measurement corresponds fully to the decision, which was called for in the 12 July 1979 decree of the CPSU Central Committee and the USSR Council of Ministers, concerning making changes to the system of physical measurements of manufactured product based on the extensive use of

scientifically sound technical and economic indicators, which make it possible to consider the efficiency, quality and other consumer properties of the product.

The product output indicators in physical terms must also be provided in net (standard) product. To determine the cost of product output for each type (manufactured article) it is necessary to multiply the amount of product manufactured in physical terms by the established standard of net product. The "Methodological instructions on the procedure for devising and using in planning the net product (standard) indicator," which was approved by the USSR Gosplan, the USSR State Committee on Prices, the USSR Ministry of Finance, and the USSR State Committee for Labor and Social Problems on 12 September 1979, are useful for making the estimates. The total amount of product output is shown in Form 3.1, in the line "Total for the enterprise." Moreover, one must remember that the total of product manufactured by the enterprise must correspond to the data given in line 03 of Form No. 8 of the statistical accounting of the production association (combine) and industrial enterprise concerning the fulfillment of the product plan. Due to the significance of the output of consumer goods, including goods for children, it is suggested that they be given in a separate line in a group assortment.

Specialized product should also be noted in Form 3.1 with a plus (+) sign. Besides this, Form 3.3 reflects indicators which characterize the specialization of production - the percentage of specialized product and the percentage of assembly articles, semi-manufactures and purchases made elsewhere.

The percentage of specialized product is estimated to the total volume of product output by net (standard) product or by another appropriate indicator established for a given sector. The indicator, which characterized cooperation in production, is defined as the ratio of the cost of assembly articles, semi-manufactures and purchases made elsewhere (in wholesale prices of the enterprise) to the amount of commodity (gross) product. It is very important in doing this that the specialization of production lead to a lowering of the use of production resources per unit of product manufactured.

Labor Intensiveness and Quality

The passport provides data concerning the technological labor intensiveness of manufacturing a unit (volume) of manufactured article. For each kind of product (manufactured article) it is suggested that data be given concerning the planned and actual labor intensiveness of a unit of manufactured article (in norm-hours). The "Instructions on the procedure of compiling and presenting the account of an industrial enterprise concerning the labor intensiveness of a unit of manufactured article," which was approved on 10 July 1975 by the USSR Central Statistics Administration, serves as a guide.

At present the labor intensiveness for a unit of manufactured article is taken into consideration for the basic kinds of product of the machine building industries. It is suggested that in the passport this indicator be used in other sectors of industry when applicable. This will make it

possible to compare the labor intensiveness of a unit of manufactured article within the sector for various enterprises and on this basis devise organizational, technical, technological and economic measures aimed at lowering the labor intensiveness of product output.

Much importance in the passport is given to the indicators that indicate product quality: their percentage of product of highest, first and second categories of quality, the percentage of product manufactured to state standards (Form 3.5). When estimating one must follow the "Basic statutes concerning the procedure for certifying the product of the machine building sector and other sectors of industry", which was approved by the USSR State Committee for Standards, the USSR State Committee for Science and Technology, and the USSR Gosplan on 17 June 1974. It is suggested that the passport might also include other indicators of product quality which are characteristic for an individual sector; for example, grade indicators in the light and food industry. Data concerning the qualitative characteristics of basic kinds of manufactured product, such as reliability, service life, productivity, technological soundness and others, are entered in Form 3.6.

The percentage of product of the appropriate category of quality should be estimated by net (standard) product or by another indicator of the volume of product output, which has been established for that sector.

Technical Level

At present in the national economy work is underway to evaluate the technical level of the machines that are being manufactured, including equipment and other machinery. Steps are being taken to increase the technical and economic indicators of industrial articles and to remove from production those articles that are outdated. The work being done must be reflected in compiling the passport. Here we have in mind that if analysis shows that the evaluation of the scientific-technical level of some article does not meet established requirements, then the article must be recertified.

The analysis of the data presented in the passport forms, which characterize the qualitative indicators of the product, will help the collectives of the associations and enterprises when they are drawing plans for the manufacture of a high-quality product.

The level of the smoothness of operation of an enterprises has a corresponding influence upon the quality of the product being manufactured, the efficiency of the use of production capacities, the timeliness of supplying product to consumers. To characterize the smoothness of production the passport contains data about the percentage of product output in the third month of the corresponding quarter of the total amount of product output for the quarter and the percentage of product output in the fourth quarter of the total output for the year. When necessary the ministries can augment the list of indicators with such indicators as smoothness of product output by 10-day periods or the 24-hour product output. An analysis of the smoothness of product output will make it possible to find production reserves and to develop measures aimed at improving the organization of production and labor.

ECONOMIC POLICY, ORGANIZATION, AND MANAGEMENT

MORE EFFICIENT PRODUCT CERTIFICATION PROCEDURES URGED

Moscow EKONOMICHESKAYA GAZETA in Russian No 3, Jan 80 p 6

[Article: "Improved Output Certification"]

[Text] The USSR Council of Ministers has examined the question of a further strengthening of the role of the certification of industrial output in improving its technical level and quality.

It is noted in the decree which has been adopted on this question that the USSR ministries and departments and the councils of ministers of the union republics are not making full use of output certification as an important means of improving the technical level and quality of products and improving the technology and organization of their production. In a number of cases output whose technical level does not correspond to the best domestic and foreign achievements is classified in the highest quality category. Many products which have been awarded the State Token of Quality are not produced. The USSR State Committee for Standards is not providing for the necessary methodological direction for the work on the certification of industrial output and frequently permits the registration of decisions classifying products in the highest quality category which does not correspond to the established demands.

The USSR Council of Ministers has bound the USSR ministries and departments and the councils of ministers of the union republics to ensure the elimination in shortcomings in this work and to make full use of certification for a thorough objective evaluation of the technical level and quality of output, its systematic renewal, and the expansion of production of high quality products.

The decree contains points which relate to the certification of output in three quality categories (highest, first, and second). It has been established that specific types of products, including foods, medical output, cosmetics and perfumes, book output, craft products, works of art, and a number of others are not subject to certification.

Output which surpasses the best domestic and foreign achievements or corresponds to them, which determines technological progress in the economy, has a high economic efficiency, and is competitive on foreign markets may belong to the highest quality category. In certifying output account has to be taken of its esthetic characteristics, and for light industry output account also has to be taken of the requirements of fashion and a correspondence to approved models (standards).

The classification of output in the highest quality category has to be performed by a State Certification Commission which is formed by the producer ministry (department). The membership of the commission consists of representatives of interested organizations, including the client ministry (department), the USSR State Committee for Standards, the USSR Ministry of Trade, and the All-Union Central Council of Trade Unions or the central committee of a trade union.

Producer ministries, departments, and enterprises (organizations) are obliged to make maximum use of existing resources for the production of highest quality category output.

The USSR State Committee for Standards, the USSR State Committee for Science and Technology, and Gosplan USSR have been charged with approving the procedure for performing output certification in the three quality categories which is mandatory for all ministries and departments.

The appropriate agencies have been given instructions on providing ministries and departments with information materials which are necessary for evaluating the technical level and quality of output and refining the statistical reporting on the certification of industrial output, and have also been charged with defining the procedure for evaluating the quality of food products.

2959

CSO: 1820

INDUSTRIAL DEVELOPMENT AND PERFORMANCE

CONCEPT OF NET OUTPUT NORM INDICATOR EXPLAINED

Output Indicator Defined

Moscow KRASNAYA ZVEZDA in Russian 14 Nov 79 p 2

[Article by Yu. Krotov, Candidate in Economic Sciences: "Normed Net Output"]

[Text] Anyone who has carefully read the decree of the CC CPSU and USSR Council of Ministers "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Increasing Production Efficiency and Improving the Quality of Work" has noticed the large amount of attention which is devoted in it to the necessity for improving the system of indicators and economic norms. These indicators and norms are approved for industrial ministries, associations, and enterprises in the five-year plans with a distribution by years.

An increase in normed net output occupies first place among these indicators which are established for the purpose of making fuller use of production possibilities and reserves.

What kind of indicator is this and why has it been taken as an orientation point?

In connection with this it would be appreciated in our discussion to recall that until recently the growth rates of the amount of output, of labor productivity, of the wage fund, and of return on capital were determined on the basis of commodity (gross) output -- in "gross totals." As is known, commodity output includes within itself the value of the physical assets (the objects of labor and the means of labor) which are used in the process of production and the value which is newly created at an enterprise by the hands of its workers. That value which expresses the concrete labor contribution of the enterprise's collective to the production of output.

What was the result? The result was that it was advantageous for an enterprise to produce output with a high level of materials intensiveness.

Why? Because this high level of materials intensiveness made it possible for an enterprise collective, with unchanged expenditures of its own labor, to have good indicators for output volume and for the other indicators derived from it. "Advantageous" products included, for example, rolled goods, pipes, and ferroconcrete output, that is, products which used a high proportion of the objects of labor.

In its turn, the production of output with a smaller material intensiveness and with a smaller proportion of previously expended labor was regarded as disadvantageous for enterprises when evaluations were made in "gross totals." In particular, an increase in the production of clothing made from cotton fabrics, of kitchen furniture, and of equipment and machinery with a small proportion of component products was not to the liking of producers.

Thus, the orientation toward commodity (gross) output frequently led to the fact that the interests of individual enterprises were not always subordinated to society's interests in a comprehensive lowering of the materials intensiveness of output. This orientation also frequently distorted ideas about the effectiveness of the work of a concrete collective.

Does this mean that it is necessary to entirely do away with the commodity (gross) output indicator, and also the indicator of the amount of sold output? Of course, not. Without them, for example, it is impossible to determine an estimate of expenditures for production, and to determine profits and profitability. For this reason the task of improved planning consists not in ignoring the indicators of commodity and sold output in the future, but only of limiting the sphere of their application to that area which they are able to objectively characterize. This, for example, is a determination of the overall amount of output and of such indicators as profits, profitability, and others which depend upon it.

However, the negative aspects of the gross value indicators of the amount of output are obvious. And to eliminate these aspects is what makes it possible to increase the role of value indicators of normed net output.

Net output is the product which is newly created in a given planning period and which characterizes the labor expenditures of a given enterprise's collective. How is this output to be determined? By means of subtracting from the amount of commodity (gross) output the value of the objects and means of labor which have been used, that is, all material expenditures.

Of course, such an elementary definition of net output is only a theoretical scheme which in its given form is unsuitable for practical application in planning and accounting work. It is unsuitable for a number

of concrete reasons connected with the technical capabilities of day-to-day planning and accounting for physical assets. For this reason the urgent necessity arises of using the net output indicator in a normed computation, that is, in the form of normed net output.

What is the technology of normed net output planning and accounting? It consists in the fact that a net output norm is established for each type of output simultaneously with the development and approval of its wholesale price on the basis of the calculation data. This norm includes within itself the data on the amount of wages per unit of output, the allotments for social security, and the profits which are provided for in the price set for a given product. The USSR Council of Ministers has charged the agencies which establish wholesale prices to simultaneously approve corresponding net output norms for specific types of output.

Consequently, the normed net output indicator increases the objectivity of planning, and also the objectivity of evaluating the work of and providing material stimulation for workers. An increase in labor productivity, the planned amount of wages, and also return on capital are computed on the basis of the normed net output indicator.

Of course, there are also other criteria in addition to normed net output. For example, Gosplan USSR is permitted to establish for individual branches and productions, on the basis of their special characteristics, other indicators which more precisely reflect the dynamics of production and an increase in its efficiency and its labor productivity. In particular, the normed value of processing may be taken as such an indicator for branches with a dynamically developing labor supply and with a substantial decrease in the labor intensiveness of production.

The CC CPSU and the USSR Council of Ministers have established that the shift to the normed net output indicator is to be carried out as the branches become prepared for this.

It should be noted that the normed net output indicator underwent several years of tests at the enterprises of heavy and energy machine building, ship building, the construction materials industry, and other branches. As of today it is being used successfully at 830 enterprises which are subordinate to 22 ministries (departments). The normed value of processing indicators has been used successfully for several years in the garment and in the ship repair industries. Experience convincingly confirms that these indicators reflect the results of a collective's own work objectively, help to reduce the materials intensiveness of production, and exercise a positive influence on improving the quality of output.

Development Procedures

Moscow EKONOMICHESKAYA GAZETA in Russian No 2, Jan 80 p 7

[Article by Yu. Krotov, Deputy Subdivision Chief at Gosplan USSR: "On the Procedure for Developing Net Output Indicators"]

[Text] A consultation in which the general problems of planning net output (normed) were examined was published under this heading in the first issue of this weekly for 1980. Today we describe the procedure for developing net output norms.

Practice shows that one of the most important points in planning the normed net output indicator is the computation and approval of norms. It is most difficult from a technical point of view during the period of preparations to shift to planning by normed net output.

Subsequently, after the shift to planning on the basis of the new indicator takes place the procedure for establishing norms for new types of output becomes much simpler since it enters into the normal technology of developing and approving wholesale prices. The engineer-calculator who develops the plan of a wholesale price for a new product also develops, on the basis of the appropriate calculation items, a plan for a net output norm which is a component part of the calculation. For this purpose the standard calculation form has been increased by six items, the last of which is "Net Output Norm."

The net output norm per unit of product includes the wages of industrial production personnel, allotments for social insurance, and profits. An example of a computation of the amount of a net output norm for a concrete product (turbine) is cited in the table. In order to simplify the table, only those expenditure items are taken from the calculation form which are connected with the computation of the net output norm.

[Table following page]

Item numbers in standard calculation form	Name of the indicators and expenditure items	Unit of measurement	Planned cost, Price, and Net output norm
5.	Basic wages of production workers;	rubles	4767
6.	Additional wages of production workers;	rubles	286
7.	Allotments for social insurance (from the wages of production workers);	rubles	373
16.	Cost minus direct material expenditures (cost of processing);	rubles	25541
17.	Profitability norm in relation to processing cost;	percent	39
18.	Profits;	rubles	9961
20.	Wages (basic and additional) of production workers with allotments for social insurance (item 5 plus item 6 plus item 7);	rubles	5426
21.	Wages of the industrial production personnel of a production association;	rubles	8841
22.	Basic and additional wages of the production workers of a production association;	rubles	3317
23.	Coefficient K_3 ;	rubles, coefficient	1.66
24.	Wages of industrial production personnel for tending and managing production including allotments for social insurance in the cost of a calculation unit (item 20 x K_3).	rubles	9007

In determining the net output norm two questions may arise with any economist who knows calculation methods. The first is how to determine the amount of the wages of industrial production personnel per unit of output, keeping it in mind that only the wages of production workers are distinguished in a pure form in the calculation items, while the wages of the remaining personnel employed in tending and administering production are concealed in the overall items of the calculation.

And the second question is how to determine the profits which are included in the net output norm. The difficulty consists in the fact that the method of forming them within the wholesale price on the basis of a profitability norm (in relation to the cost of a product) which was used until recently does not sufficiently reflect the results of the labor of the workers of a given enterprise, since the level of materials intensiveness has an important influence on the amount of profits.

These questions are solved in the following way.

The basic and additional wages of the production workers which are singled out in the calculation in individual items are put at the basis of the calculation of the amount of the wages of industrial production personnel per unit of output. The wages of the remaining personnel which are concealed in the overall items in the calculation are determined through the coefficient K_3 . The amount of the coefficient K_3 is computed on the basis of the reporting data for the year preceeding the establishment of the net output norm.

The annual report (on expenditures for production) contains data on the wages of the entire personnel of the enterprise while the report (on the cost of commodity output) contains the wages of production workers. It is the relationship of the difference between these magnitudes to the wages of production workers that forms the coefficient K_3 which is cited in the table and which is applied to all types of the output produced by the enterprise.

In our case, proceeding from the data in the table, the coefficient is equal to:

$$K_3 = \frac{8841 - 3317}{3317} = 1,66.$$

The coefficient K_3 is individual for each enterprise and is dynamic; that is, it operates for only one year. This kind of solution is dictated by the following considerations: The wholesale price for a new product is determined on the basis of average branch costs which are understood as the median expenditures for the production of output by concrete producer enterprises. This principle is also applied to the formation of the net output norm.

Let us now examine the method of determining the profits which are to be included in the net output norm. The same profits which go into the wholesale price at the time it is established are included in the norm. However, with one invariable condition. The amount of the profits which are included in the price are calculated on the basis of a profitability norm which has been established for the given type of output in relation not to the total cost of the output, but to the cost of processing. That is, without consideration for the direct material expenditures which are singled out in the appropriate calculation items (the cost of the basic materials, of purchased semi-finished goods and component products, and also of the fuel and energy which is used for technological purposes).

Thus, in calculating the amount of profits account is taken of the cost of processing, the expenditures for wages, the allotments for social insurance, and the expenditures which characterize the use of the means of labor. This method of establishing profits is based on the necessity

for creating a definite correspondence with the amount of a given enterprise's workers' own labor since the surplus product, as is known, is created only by live labor.

However, in connection with this, another question may immediately arise: Would it not be better in this case to establish the profitability level not in relation to the cost of processing, but to the amount of the wages of the entire personnel?

This would be entirely acceptable for net output norms. But in this case the amount of profits at highly equipped enterprises which have a relatively small labor intensiveness per unit of output would frequently be insufficient to make payments for capital and allotments to the economic stimulation fund.

The net output norm is formed from the basic and additional wages of production workers plus allotments for social security (item 20) and the wages of industrial production personnel for tending and administering production plus allotments for social insurance in the cost of a calculation unit (item 24), and profits (item 18). For our example, as can be seen from the table, the norm is 24,394 rubles (5,426 plus 9,007 plus 9,961).

The net output norms are approved by those state, Soviet, and economic agencies which, in accordance with the operating price formation procedure have been given the right to approve prices for a given type of output.

As a rule, the net output norms are branch norms. This means that if a concrete type of output is produced at several or even at many enterprises and is sold for the same price, regardless of the departmental membership of the enterprises, the net output norm for these enterprises has to be the same. However, in a number of cases it is necessary to differentiate branch norms in conformity with the concrete conditions of individual enterprises (groups of enterprises). It is necessary, first of all, to take account of the level of deliveries through intra-branch cooperation.

Planning Procedure

Moscow EKONOMICHESKAYA GAZETA in Russian No 1, Jan 80 p 7

[Article by Yu. Krotov, Deputy Subdivision Chief at Gosplan USSR: "On the Procedure for Planning Net Output (Normed)"]

[Text] In keeping with numerous requests from our readers in the "Correspondence School for Economists," in 1980 there will be a systematic publication of consultations on the various aspects of improving the

economic mechanism. In the first consultations it is planned to discuss the special features of the new system of indicators.

The indicator of normed net output is being assigned an important role in the planning work of industrial ministries, associations, and enterprises. Beginning with the 11th Five-Year Plan this indicator will be used in many branches as a basis for determining increases in the amount of production and in labor productivity for establishing wage norms and norms for allotments to the single scientific and technical development fund, and for evaluating the use of fixed productive capital (return on capital).

It is important to understand that this kind of role for the normed net output indicator in the system of planning follows from its economic essence: to reflect the amount of newly created value and through it the amount of the expenditures of an enterprise (association, branch) collective's own labor in the production of a concrete type of output. The introduction of the net output norm makes it possible to create an objective basis for determining the growth rates of labor productivity, of the necessary number of workers, the wage fund, and of return on capital.

The amount of pure net output, as newly created value, can be determined by means of subtracting from the amount of commodity output the cost of the objects and means of labor which have been used; that is, all of the material expenditures for the production of output. However, this seemingly simple computation method, as the work practice of enterprises has shown, is insufficiently effective.

The amount of net output which is established by the above computation method can in many cases distort the amount of the work and the level of the productivity of the live labor of the workers of a given enterprise, since the results of an economy (overexpenditure) of physical assets are reflected in its final amount. This circumstance would inevitably lead to a loss of control over labor productivity at the given enterprise.

Normed net output represents a part of price and, like a wholesale price, it is established on the basis of average branch labor expenditures. In this case it more accurately expresses the newly created value per unit of output in a given branch.

The technology of planning and calculating the amount of normed net output consists in the following.

At the same time that the wholesale price is worked out and approved for each type of output (concrete product) on the basis of the appropriate

calculation data, a net output norm is established which is the part of this price that reflects the amount of new value which has been created by an enterprise's workers' own labor in the production of the concrete type of output. In this way, in a generalized form, this norm per unit of output includes within itself the amount of the wages of the industrial production personnel, allotments for social insurance, and profits. There will be a more detailed discussion of the calculation of net output norms in the following issue of the "Correspondence School for Economists."

In the table below an example is cited of the calculation of a turbine plant's plan for output volume and for the amount of normed net output. The output products list in this example is given, of course, in a somewhat simplified form.

1. Наименование продукции	2. Едини- ца из- мере- ния	3. Количе- ство	4. Цена единицы, руб.		7. Норматив чистой продук- ции (НЧП) на едини- цу про- дукции, руб.	8. Объем товарной продукции, тыс. руб.		11. Объем норма- тивной чистой продук- ции, тыс. руб.	12. Удельное значение НЧП в со- постав- ной цене (спра- вочно)
			5. дейст- вующая	6. сопоста- вляемая		9. в дейст- вующих ценах	10. в сопо- ставимых ценах		
1	2	3	4	5	6	7	8	9	10
13. Турбина типа А.	шт.	120	75000	78600	24400	9000	9432	2928	0,310
14. Турбина типа Б.	шт.	30	110000	118000	31900	3300	3340	957	0,270
15. Турбина типа В.	шт.	12	81800	81800	26200	739	739	314	0,423
16. Кооперирован- ные поставки	руб. 22,	—	—	—	6,590	7400	7340	4449	0,390
17. Товары народ- ного потреб- ления	руб.	—	—	—	—	946	946	684	0,702
18. в том числе: баллоны для	шт.	80000	9,3	9,3	8,8	760	760	544	0,716
19. газа	шт.	300	0,62	0,62	0,4	186	186	120	0,643
20. кухонные набо- ры	шт.	300	0,62	0,62	0,4	186	186	120	0,643
23. Итого:	—	—	—	—	—	21385	22197	9312	0,420

[Key on following page]

Key:

- | | |
|----------------------------------|-------------------------------|
| 1. Name of the output; | 12. Specific value of the net |
| 2. Unit of measurement; | output norm in the comparable |
| 3. Quantity; | price (reference); |
| 4. Price of a unit, rubles; | 13. Type "A" turbine; |
| 5. Actual; | 14. Type "B" turbine; |
| 6. Comparable; | 15. Type "C" turbine; |
| 7. Net output norm per unit of | 16. Cooperative deliveries; |
| output, rubles; | 17. Consumer goods; |
| 8. Amount of commodity output, | 18. Including; |
| thousands of rubles; | 19. Gas cylinders; |
| 9. In actual prices; | 20. Kitchen sets; |
| 10. In comparable prices; | 21. Units; |
| 11. Amount of normed net output, | 22. Rubles; |
| thousands of rubles; | 23. Total |

The amount of normed net output both in the plan and in the report is determined on the basis of the same scheme that has been adopted for calculating commodity output. The difference here is only in the following. The amount of output in physical terms is multiplied not by a comparable price, but by a comparable net output norm which is established for the given type of output.

The above table graphically demonstrates the simplicity of computing the normed net output indicator on condition that an enterprise has norms which have been approved in the appropriate manner. Thus, in order to calculate the planned amount of the production of type "A" turbines in normed net output it is necessary to multiply the data of column 3 (number of output units) by the data of column 6 (net output norm). In this case the calculation will have the following appearance: $120 \times 24,400$. That is, the amount of normed net output is equal to 2,928,000 rubles.

I would like to call attention to column 10 in which the amount of specific value of the net output norm in a comparable price is indicated. This indicator plays an important role in analyzing plan fulfillment or the growth rates of normed net output compared with the corresponding data for commodity output in comparable prices.

The fact is that at a majority of enterprises of the processing branches of industry there is, as a rule, products list changes with an output compared to the plan or to the preceeding (base) period. As a result of this, there is an inevitable deviation between the data on plan fulfillment or on the growth rates of normed net output and the corresponding data for commodity output in comparable prices.

For example, if the plan has been fulfilled (the proportion has increased) for products with a relatively high specific value of the net output norm compared to its average amount for the enterprise's output as a whole (in the given example -- for cooperative deliveries and consumer goods), then the fulfillment of the plan (growth indicator) for normed net output will be higher than for commodity output in comparable prices. And, on the contrary, if the plan has been overfulfilled (the proportion has increased) for products with a relatively low specific value of the net output norm, for example, for more material intensive products (in the given example -- for type "A" or "B" turbines), then there may be lower results for normed net output than for commodity output in comparable prices. Of course, this point must without fail be considered by the ministry or association when it approves a production volume plan for an enterprise in keeping with an assigned products list and an analysis of work results.

The specific value of the net output norm in a comparable price is determined as follows. The net output norm is divided by the comparable price of a unit of output. In our example (see the table) this indicator for type "B" turbine is equal to 270 (31,900 divided by 118,000).

It has to be said that when the net output norm is used the necessity for an indicator of commodity output in comparable prices is not obviated. It will be present as an estimated indicator in the plan and report of every enterprise in the future also. There are several reasons here. One of them is that the shift to the net output norm in individual ministries (departments) may take place gradually, on the level of industrial associations and administrations, and for a certain period the necessity remains for using commodity output in comparable prices as the uniform indicator for the ministry (department) as a whole.

2459

CSO: 1820

REGIONAL DEVELOPMENT

REGIONAL SHIFTS NOTED IN REPUBLIC'S INDUSTRIAL DEVELOPMENT

Yerevan PROMYSHLENNOST' ARMENII in Russian No 12, Dec 79 pp 7-19

[Article by Economist G. G. Ayrapetyan: "On Regional Shifts in the Development of Republic Industry"]

[Text] The fullest utilization of the advantages of the socialist economic system, the growth of the country's economic power, and the welfare of the people have always been at the center of the party's and the government's attention. The resolution of the CPSU Central Committee and the USSR Council of Ministers: "On Improving Planning and Strengthening the Effectiveness of the Economic Mechanism on Increasing Production Efficiency and Raising the Quality of Work" is directed at the solving of these problems.

In the resolution much attention is given to perfecting the sectoral and territorial proportions of the national economy's development, as well as to rational utilization of the chief productive force: manpower resources.

In plans for the economic and social development of our republic, these problems, being some of the fundamental ones, are determined by a number of circumstances. First of all, the average annual rate of population growth in the country from 1959 to 1979 was 1.1 percent, whereas it was 2.7 percent for the republic during the same period. Secondly, at the beginning of the current decade, the average annual growth rate of the volume of industrial production in the republic slowed down (while it was 11.5 percent for the period 1966-1970, it was only 7.7 percent for 1971-1975), but at the same time the growth of the number of workers in industry ceased. This was one of the chief reasons for the numerical increase in manpower resources employed in the domestic and individual subsidiary economy.

Under the conditions which have come to exist in the republic, a highly complex demographic situation has arisen.

Considerable difficulties in solving the problem of employment of the population have been caused by the great disproportions between manpower resources and the number of jobs in individual cities and rayons of the republic. Thus, while in Yerevan where there is a heavy concentration of

industry, difficulties have been experienced in the supplying of production units with manpower resources and the demand for additional manpower has been met principally by increased mechanization and two-way migration on the part of the population; in the small towns and in the rayons of the republic (the Martuninskiy, Vardenisskiy, Spitakskiy, Sisianskiy, Krasnosel'skiy rayons and a number of others) the number of those employed in the individual subsidiary and domestic economy has considerably exceeded the average for the republic due to a lack of jobs.

All this has indicated the necessity of immediate measures for creation of additional jobs in the national economy and the employment in social production of the able-bodied population. There are several ways to solve this problem. Of the three leading sectors of the republic's economy, industry, agriculture and construction, the employment problem could be solved only in industry, since the number of workers in the other two sectors had stabilized and the growth of production volume in them had to be compensated for by an increase in labor productivity.

In this connection, there has been recourse to measures specifically intended to make progressive changes in sectoral and territorial proportions by accelerating the growth of the labor-intensive sectors of machine construction and the location of new production units primarily in small towns and recently-organized industrial centers.

These measures, in spite of their incomplete nature, provide for the rapid growth of machine construction and increase the labor activity of the population. Thus, in the current five-year plan, given the expected growth of the total gross volume of industrial production in the republic by 46 percent, the volume of instrument manufacturing is increasing by 70 percent, that of the automotive industry is growing by 68 percent, and that of other labor-intensive sectors of machine construction is more than doubling.

Along with the stable growth of industrial production, there is provision for shifting it to small towns and rayons where industry is underdeveloped. Thus, from 1976 to 1978 new capacities have been exploited in the brewery and the reinforced-concrete construction plant in the Abovyanskiy rayon, in the heavy machinery repair plant in the Artashatskiy rayon, in the rubber footwear and knitwear factories in the Gorisskiy rayon, in the cement works and the winery in the Idzhevanskiy rayon; in the cable factory and meat combine in Kamo; in the Zangezurskiy copper-molybdenum combine, the furniture factory and the auto-repair and reinforced-concrete construction plants in the Kafanskiy rayon, the woodworking and wood-particle board factories in the Masisskiy rayon, the glass and canning factories and cognac distillery in the Oktemberyanskiy rayon; in the smithy and the machine-tool, "Isentrolit," and clothing factories in Charentsavan; such units were put into force in the Sevanskiy, Spitakskiy, Talinskiy, Khmiadzinskiy, and other rayons.

In the major settlements of the Yekhegnadzorskiy, Martuninskiy, Kalininskiy, Gorisskiy, Kafanskiy, and other rayons, located at a distance from industrial enterprises, about 40 branches were organized for the population's employment development.

Indices	Proportion, %			1979 to
	1975	1978	1979	1975, %
Volume of gross production in the republic as a whole including:	100	100	100	132.3
in Yerevan, Leninakan, Kirovakan	70.5	68.9	67.8	127
in the remaining small towns and rayons	29.5	31.1	32.2	145
Numbers of industrial production personnel				
in Yerevan, Leninakan, Kirovakan	70.7	65.9	65	107.2
in the remaining small towns and rayons	29.3	34.1	35	138

All this made it possible to provide for a heretofore unequalled growth of the volume of industrial production and employment level of the population of the small towns and the rayons (see table).

Given the expected growth of the gross production volume in four years in the republic as a whole by 32.3 percent, the increase for three cities: Yerevan, Leninakan, and Kirovakan amounts to 27 percent; the increase in the small towns and rayons of the republic to 45 percent.

However, in spite of noteworthy progress, unemployment in the social economy is still high, especially in the administrative rayons of the Shirakskiy, Lori-Pambakskiy, and Sevanskiy regions. In this connection, the problem of the further improvement of the sectoral structure and of rational placement of industry remains primary in the plans for the development of the republic's national economy.

In the coming decade, given an increase of the total industrial production volume in the republic by 86 percent, the production output of machine building is expected to rise.

In plans for the republic's economic development in the coming years, construction of over 90 new industrial enterprises is foreseen, among them only 20 enterprises with complex technological processes demanding highly-qualified cadres of workers and engineer-technicians: in Yerevan, Leninakan, and Kirovakan. With the majority of enterprises being built in the suburbs, it becomes possible to employ part of the free manpower of the nearest rayons in industrial production.

Over 70 production units are to be built in the rayons and small towns of the republic. Organization of new industrial centers in the Razdanskiy and Martuninskiy rayons of the Sevan basin is foreseen.

In the next years, with the development of industry, the city of Razdan will become one of the major industrial centers of the republic, with a population of over 100,000. In the same period, the volume of gross industrial production of the city will grow to over four times the present figure (given a rise in this indicator for the republic to 1.8 times the present figure), while its share in the total industrial production volume of the republic will make up about 7 percent, as opposed to 2.7 percent at present. In order to represent the dimensions of Razdan's development, it is enough to say that the factories will produce in the very near future almost as much as all the industrial enterprises of Leninakan and Kirovakan taken together produce at present.

The creation of an industrial center on acreage between the rayon center Martuni and the settlement Nerkin Getashen, which are unsuitable for agriculture, is also foreseen. Manpower resources will be drawn into industrial production from the rayon center and nearest settlements, where approximately two-thirds of the manpower resources of the rayon are concentrated.

It must be noted that such organization of industry is very advantageous for our republic with its high density of population points. This makes possible, besides employment of the able-bodied population, the formation of unified group systems of population points, joined by telecommunications and transportation links, as well as the concentration and consolidation of production projects of general use and likewise of projects significant for cultural, communal, and daily life. This will also increase the effectiveness of capital investments, eliminate removal of land from agricultural turnover, and make possible measures for the protection of nature.

In the coming years the expansion of the republic's industry by 150,000 jobs is planned, 100,000 being allotted to small towns and rayons.

Locating production in this way makes possible acceleration of industrial development and the implementation of the measures for the rational utilization of the republic's manpower resources foreseen in the resolution of the CPSU Central Committee and the USSR Council of Ministers

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